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## Manufacturing Business Leaders' Strategies for Achieving Diversification and Sustainability

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# Walden University

College of Management and Technology

This is to certify that the doctoral study by

Tracye D. Weeks

has been found to be complete and satisfactory in all respects,  
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Walden University  
2021

Abstract

Manufacturing Business Leaders' Strategies for Achieving Diversification and  
Sustainability

by

Tracye D. Weeks

MMC, The University of Georgia, 2003

BS, Albany State University, 2002

Consulting Capstone Study Submitted in Partial Fulfillment  
of the Requirements for the Degree of  
Doctor of Business Administration

Walden University

July 2021

## Abstract

Manufacturing businesses can fail due to not implementing diversified business strategies. Some manufacturing business leaders lack strategies to diversify lines of business for achieving business sustainability. Grounded in the resource-based view theory, the purpose of this qualitative single case study was to explore strategies three manufacturing business leaders in the northeastern region of the United States used to diversify lines of business to achieve sustainability. Data were collected via semistructured interview recordings, company documents, and internal archived documents, as well as public documents found on the internet. Thematic analysis of the data revealed the importance of implementing (a) servitization strategies to diversify lines of business, (b) strategies to convert internal resources to sustain the business and build competitive advantage, and (c) stakeholder agreement strategies to move forward with these strategies. A key recommendation identified in the study is that manufacturing business leaders should implement a service-led diversification strategy with urgency to improve profitability. Implications for positive social change include the potential to increase employment opportunities that add to the stabilization of local economies and strengthening relationships with the community in which the business operates.

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## Dedication

This journey was personal but what I learned while pursuing my doctorate degree is that what was needed to complete the journey was collaboration and support. This is dedicated to my friends, family, and co-workers who were supportive of the process both personally and professionally. To my husband, William, and our children, Willow, Carter, and Harper, thank you for allowing me time and space to complete this accomplishment. Let this be an example that you can do whatever you dream and set your mind to.

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## Section 1: Foundation of the Study

As the manufacturing industry evolves over time and competition increases, manufacturing business leaders are forced to develop ways to remain competitive and improve business growth and sustainability (Kuzminski et al., 2020). Some manufacturing leaders have discovered the potential in diversifying their product offerings to attract more customers and improve customer satisfaction (De-long, 2019). Manufacturing business leaders have begun to add service offerings as a means of competitive advantage and industry evolution (Kamal et al., 2020). Diversifying the types of products and services offered has allowed manufacturing organizations opportunities to overcome barriers and gain competitive advantage as well as chances to improve organizational sustainability.

### **Background of the Problem**

Manufacturing business leaders strategically use diversification to sustain business during economic declines and other business challenges by evolving their current resources into sustainable competitive advantages (Lockett, 2005). Additionally, manufacturing business leaders improved technology and cross-functional capabilities of business units and increase their access to information to gain sustainability (Hitt et al., 2016). In the manufacturing industry, business leaders seek strategies to sustain their business in changing economies despite increasing risks from competitors and requests for innovation from customers (Oladimeji et al., 2020). Manufacturing business leaders seek strategies to diversify their lines of business to achieve sustainability.

Since early 2000, UNITED STATES manufacturing companies have experienced significant declines in manufacturing profitability, which was exacerbated by the recession in 2008 (Bonvillian & Singer, 2018). Manufacturing business leaders have followed trends towards innovation to improve customer satisfaction and loyalty and sustain competitive advantage (Kowalkowski et al., 2017). Manufacturing business leaders of production companies have experienced steady declines in business as competitors enter the market who can offer consumers similar products at significantly reduced prices (Modak, 2019). Many manufacturing business leaders explore the innovation of service offerings and product diversification to overcome barriers to sustainability. Manufacturing business leaders in the production industry need strategies to diversify lines of business to achieve sustainability.

### **Problem Statement**

Combining product and service strategies can create a competitive advantage in the manufacturing industry, but a lack of diversification strategies leads to business failure in manufacturing organizations (Valtakoski, 2017). For instance, 39% of manufacturing business leaders lacked an understanding of transition challenges, which delayed the implementation of service-led diversification strategies (UNITED STATES Department of Commerce, 2018). The general business problem is that traditional manufacturing businesses can fail due to not implementing diversified business strategies. The specific business problem is that some manufacturing business leaders lack strategies to diversify lines of business for achieving sustainability.

### **Purpose Statement**

The purpose of this qualitative single case study was to explore the strategies manufacturing business leaders use to diversify lines of business for achieving sustainability. Three business leaders of a manufacturing organization, Company X (a pseudonym) located in the northeastern region of the United States comprised the target population. Participants were required to have successful experience implementing diversification strategies for sustainability. Diversification can enable business leaders to rehire long-term and loyal employees, fulfilling the business mission and their commitment to being responsible business partners in surrounding communities. Thus, the findings of the study may contribute to positive social change through the increase of employment opportunities, which can add to stability for local economies and improve socioeconomic conditions for employees and their families.

### **Nature of the Study**

Researchers choose one of three methods: qualitative, quantitative, and mixed methods. This study involved using a qualitative method to explore the diversification strategies of manufacturing business leaders. Qualitative research can be associated with interpretive philosophy (Ridder, 2017). Qualitative research is interpretive because researchers need to justify subjective and socially-constructed meanings expressed about the studied phenomenon (Saunders et al., 2015). Using the qualitative research design enabled me to focus on the broad context of an organization and the business problem.

Researchers make statistical conclusions about broad populations by acquiring knowledge from sample groups (Saunders et al., 2015). Further, sometimes researchers

merge quantitative and qualitative methods. However, mixed methods research can lead to loss of exploratory or explanatory richness of data (Saunders et al., 2015). The focus of my study was to gather new insights on strategies manufacturing business leaders use to diversify lines of business and achieve sustainability through interviews and company document reviews. Therefore, the qualitative method was more appropriate than the quantitative or mixed methods approach.

For this study, I considered four common qualitative research designs: content analysis, phenomenology, ethnography, and case study. With content analysis, researchers draw conclusions typically using large amounts of data to draw inferences about a certain topic (Loktev & Zuev, 2017). Content analysis was not the optimal choice for this study, as my participating organization did not have past or current processes to review. The phenomenological design is used to explore and understand the meaning of research participants' lived experiences (Alase, 2017); the focus of this study was not participants' lived experiences. Ethnographic researchers rely on prolonged and direct observations of a group and/or documents to identify human experiences (Saunders et al., 2015). Conducting prolonged observations with participating organizations was not possible; therefore, I determined the ethnographic design was not appropriate for the study. Finally, case study research is preferable when relevant behaviors cannot be manipulated and researchers seek to understand the why, what, and how of a phenomenon (Yin, 2018). Additionally, researchers must decide whether to use a single or multiple case study design. Because single case study designs can be used to capture the circumstances surrounding everyday situations, I used the single case study design to



explore the why, what, and how of a common phenomenon in determining the strategies manufacturing business leaders use to diversify lines of business for achieving sustainability.

### **Research Question**

What strategies do manufacturing business leaders use to diversify lines of business for achieving sustainability?

### **Interview Questions**

1. How did your organization develop its business diversification strategy?
2. What were the key challenges to implementing your organization's diversification strategy?
3. How did you overcome key challenges to implementing your organization's diversification strategies?
4. How did you assess the effectiveness of your strategies for diversifying your lines of business?
5. How, if at all, did customer feedback affect goals associated with implementing your organization's diversification strategies?
6. What strategies did you use to increase sales in your new product lines?
7. From your experience, what have been the effects of implementing diversification strategies on your organization?
8. From your experience, what have been the principal results from the business model diversification strategies on your customers?

9. What else can you share that may be important in terms of understanding the diversification strategies your organization has developed and implemented?

### **Conceptual Framework**

The resource-based view (RBV) theory was the conceptual framework for this qualitative single case study because manufacturing leaders often create new and revitalize current resources to diversify and maintain sustainability. The theory is relevant in developing organizational strategy and has been used in organizations by focusing on resources as a source of competitive advantage. The key constructs and propositions underlying the theory are: (a) an organization's development is shaped by the effort they put forth in using ever-evolving resources, (b) sustainable competitive advantage is built using productive resources, and (c) business leaders are expected to develop strategies that extend competitive advantage (Lockett, 2005).

The RBV theory was a relevant conceptual framework for this study to aid in identifying existing and additional resources to secure competitive advantage. This framework can also help explore the strategies manufacturing business leaders use to diversify lines of business for sustainability. The use of the RBV theory enabled me to review resources used by other manufacturing organizations to achieve advantages and mitigate disadvantages of diversification.

### **Operational Definitions**

The following are definitions of concepts used in this study, which I have defined for the purposes of this research:

*Baldrige Performance Excellence Program:* The Baldrige Performance

Excellence Program is a tool used by organizations to systematically evaluate themselves against the seven pillars of excellence which can help to improve results and accomplish sustainability. The purpose of the Baldrige Program is to aid organization leaders in identifying strengths in preparation for overcoming challenges in the business environment by asking three questions:

- Is the organization doing well as it could?
- How do you know?
- How can the organization improve or change?

*Diversification:* Diversification is the exploration of developing products and ideas that increase an organization's competitiveness and sustainability (Greibenkin, 2018).

*Servitization:* Servitization is the shift of manufacturing organizations from selling goods only to selling a combination of goods and services (Bustinza et al., 2017).

*Sustainability:* Sustainability is the ability or capacity of something to be maintained or sustain itself (May & Stahl, 2017). Sustainability in this study refers to successfully growing and maintaining businesses.

### **Assumptions, Limitations, and Delimitations**

Assessing assumptions leads to understanding objectivity dependent on experience (Conaill, 2017). Without understanding assumptions, limitations, and delimitations of a study, researchers may have limited objectivity, and readers may not understand boundaries recognized by the study (Conaill, 2017).

**Assumptions**

A claim that cannot be verified is considered an assumption (Marshall & Rossman, 2016). There were four assumptions to my study. My first assumption was that participants were honest, open, and frank when participating in the interviews and responding to criteria questions using the Baldrige Performance Excellence Program. My second assumption was that I was objective and did not show bias when analyzing or collecting material from participants. My third assumption was that the RBV theory could be adapted as the conceptual framework for the study and was an appropriate method for organizational leaders to understand and implement diversification strategies involving sustainability. My final assumption was that semistructured telephonic interviews, research into the organization's internal and external documentation, and Baldrige Performance Excellence Program criteria allowed for sufficient data analysis and saturation.

**Limitations**

Limitations in a study refer to potential weaknesses that may be uncontrollable and affect study outcomes (Marshall & Rossman, 2016). The first limitation of this study was that I only gained information regarding experiences of business leaders in one manufacturing organization from one region in the United States and did not gather experiences from leaders in other manufacturing organizations, which provides a limited perspective on the subject matter. The second limitation was that data from semistructured interviews with leaders and the analysis of one organization's internal and

public documents limited generalizability of results across other organizations and industries.

### **Delimitations**

Delimitations characterize scope limitations and boundaries of the research study (Denzin, 2017). Delimitations in this study involved its scope, data derived from interviews, review of organizational documents, analysis of organizational data, and participants. In this study, I explored diversification strategies of leaders of one manufacturing organization located in the northeastern region of the United States. Only three leaders of the organization under study participated in telephone interviews. Participants included a leader of the manufacturing organization as well as senior employees of departments in the organization. Participants all lacked experience in terms of diversifying business lines for sustainability.

### **Significance of the Study**

Study findings may be valuable to manufacturing business leaders because of sustainability perspectives gained when implementing diversification strategies in manufacturing organizations. Managers who have implemented diversification strategies in manufacturing organizations have introduced ways for struggling manufacturing businesses to revitalize their business models, redefine target markets, and enhance product offerings. There is a positive relationship between diversification and the increase of innovative products generated once a strategy is implemented (Grebенkin, 2018). Generally speaking, diversification leads to new products or services being brought to market. Manufacturing business leaders who recognize that inevitable changes

are occurring in the industry and put plans in place to address new industry needs and diversify products and services help sustain businesses, whereas those who do not recognize, accept, and address such changes are less likely to sustain them (Ghobakhloo, 2018). Thus, findings of this study may contribute to effective business practice for manufacturing leaders who could use results to improve competitiveness and achieve sustainability.

The study's results could also contribute to positive social change by enabling business leadership to rehire long-term and loyal employees. There is a significant relationship between corporate social performance and diversification strategies that improve competitiveness (Patrisia & Dastgir, 2017). Organizations desiring to grow create competitive advantage and realize how synergic social performance strategies increase market power and efficiency and reduce risk. Local economies could benefit from increased productivity and manufacturing through the stabilization of employment and income. Additionally, socioeconomic development as a byproduct of diversification and innovation can increase organizations' ability to address social responsibilities (Patrisia & Dastgir, 2017).

### **A Review of the Professional and Academic Literature**

This qualitative single case study was about strategies manufacturing business leaders use to diversify business lines for sustainability. I conducted a thorough review of the literature to establish the foundation of this study by exploring diversification strategies manufacturing leaders use to sustain their business. An analysis of literature associated with a research topic is the foundation of scholarship and is essential for

maintaining the integrity of research. The literature review was essential in providing information regarding the focus of the study, which was effective strategies manufacturing business leaders use to diversify lines of business for sustainability.

I used the following key terms: *business model, competence-based theory, competitive advantage, competitive advantage theory, customer satisfaction and dissatisfaction, diversification, dynamic capabilities theory, family-owned businesses, growth, innovation, internal resources, leadership, Lean Six Sigma, manufacturing supply chain, operations, Porter's five forces theory, productivity, resources, resource based view theory, service innovation, servitization, strategy, strategic management theory, sustainable competitive advantage, sustainability, and value-based theory, and workforce.*

The research process included the use of multiple academic databases available through Walden University, including ABI/INFORM Complete, Business Source Complete, EBSCOHost, Factiva, Mergent Intellect, NetAdvantage (S&P), and ProQuest. Google Scholar served as the primary search engine used to find scholarly articles to add context to the foundation of this study. I verified peer-reviewed literature using Ulrich's Web Global Serials Directory. I visited academic journal home pages to ensure literature was peer-reviewed and published between 2017 and 2021. I used some nonpeer-reviewed sources as well as peer-reviewed articles published before 2017, government sources, and seminal works involving the development of theoretical constructs. The literature review is arranged topically and highlights main issues associated with the research problem. The literature review begins with a discussion regarding the conceptual framework of the

study and possible competing theories, followed by a discussion of product and business diversification, internal resources, leaders' roles in strategy, and barriers to strategy implementation. This literature review exceeded the suggested minimum of 85% of peer-reviewed sources, and 85% of sources used were published between 2017 and 2021.

### **Foundational Conceptual Framework**

The conceptual framework for this study was the RBV theory. The RBV theory is a framework designed for leaders to use to determine their organizations' strategic resources as they strive to attain a sustainable competitive advantage (Barney, 1991). The RBV theory is the appropriate conceptual framework for this qualitative single case study because manufacturing leaders often create new and revitalize current resources to diversify and maintain sustainability. Researchers use a conceptual framework to define the goals of the study, identify its scope, and justify research (Guntur, 2019). Researchers study theories to explain, predict, and understand relationships within social systems (Murray, 2019). Researchers can also use theoretical concepts to challenge and extend the existing body of knowledge to interpret and code research for future use (Cheng, 2018). Frameworks are a pattern of detailed descriptions of the phenomenon (Daniel & Wald, 2019).

Penrose (2009) said organizations can identify and develop unused and underused resources as drivers of growth. Organizations have two sets of resources: one set they use to attain competitive advantage, while they use the other set of resources to ensure sustainability (Barney, 1991; Grant, 1991; Penrose, 2009; Wernerfelt, 1984). Alexy et al. (2018) said strategically opening resources, which is the process of relinquishing control



over resources and sharing them with other firms may improve profitability.

Organizational leaders can use the RBV theory to strategize how to gain a competitive advantage using resources to which the firm already has access.

The RBV theory was the most relevant theory for this study. The use of the RBV theory aided in identifying resources manufacturing business leaders use to secure competitive advantage and diversify for sustainability. The key propositions underlying the theory are: (a) an organization's development is shaped by the effort they put forth in using ever-evolving resources, (b) sustainable competitive advantage is built using productive resources, and (c) business leaders are expected to develop strategies that extend competitive advantage (Penrose, 2009). The RBV theory was appropriate for this study because using it enabled me to review resources used by other manufacturing organizations to maximize advantages and minimize disadvantages of diversification. Manufacturing business leaders seeking effective ways to sustain their business through diversification strategies may use this conceptual framework to gain better perspectives regarding diversification and sustainability processes.

A central tenet of the RBV theory is that effective use of internal resources is central to a firm's ability to compete in the market. Researchers who adopt the RBV theory study an organization's internal environment while emphasizing resources organizations developed to compete. Penrose (2009) also said the internal resources used by the organization are the most important aspect relating to overall success. Strategically important resources are the primary source of competitive advantage within an organization (Barney, 1991). Terpstra-Tong et al. (2020) said business leaders may

manipulate their firms' resources, thereby creating a competitive advantage. Firms that successfully achieve competitive advantage likely have leaders who have developed the firm's core competencies and strategic assets effectively.

The RBV theory is applicable to global firms. Tabares et al. (2015) said factors that influence the expansion capabilities of organizations include networks, technology, and learning capabilities. Applying innovative technology may enhance a firm's ability to deploy internal resources for greater profitability and sustainability. Hitt et al. (2016) said a survey of 104 manufacturing companies indicated the importance of the integration of growth and sustainability in manufacturing organizations by being competitive. Sroufe (2017) said that the use of integration is a method for increasing sustainability.

### ***Resource-Based View Theory***

Having resources allows for a competitive advantage, which enables a company to achieve greater profits (Carter et al., 2017). A strategic resource is an asset that is scarce, challenging to replicate, and does not have substitutes. Assets are essential to enables companies to develop strategies to take advantage of opportunities and mitigate threats (Hitt et al., 2016). Competitors find it hard to copy resources that are challenging to replicate. Some assets are hard to replicate because they evolve after a period and exhibit distinct characteristics of a firm (Hong et al., 2017). A resource that is scarce, challenging to replicate, does not have substitutes, and is essential can provide a sustained competitive advantage and promote success in the long term (Hitt et al., 2016). Assets that do not possess all four of these characteristics might still be useful for a time but unlikely to offer key advantages overall. A rare and scarce resource might be

advantageous in the short term, but rivals will eventually overcome disadvantages (Terpstra-Tong et al., 2020). As such, companies possessing these characteristics may have a long-term advantage.

Internal resources refer to capacities and competencies of firms, and some resources may prove to be more important for profitability and sustainability than others. It is vital to separate strategic assets from other resources. Money and cars are valuable resources for numerous individuals and firms. When evaluating organizations and organizational success, cars and money are not considered strategic resources. These types of assets are valuable; however, competitors can still access them (Carter et al., 2017). Thus, companies cannot obtain a competitive advantage from these types of non-strategic resources as they are more easily attained.

At times, environmental occurrences can convert a common asset into a strategic one. Generic commodities such as water are resources which people cannot live without. The resource cannot be replicated on a large scale, and no other product has the life-sustaining qualities of water. Water is scarce, difficult to replicate, and is essential but remains inexpensive in most countries. However, droughts can make water scarce and landowners with bodies of water on their land can benefit from this resource. Resource-based advantages may evolve out of uncommon situations and circumstances, leading to improved results (Hitt et al., 2016).

Hitt et al. (2016) said unused and underused resources can represent competitive advantages for organizations and help achieve sustainability in businesses. The RBV theory is the most applicable theory to use as the conceptual framework of this study

designed to explore strategies manufacturing business leaders use to diversify lines of business for sustainability. Manufacturing organizations can use the RBV theory to develop previously unused resources to drive growth, thereby increasing diversification. Manufacturing business leaders who use the RBV theory to diversify business may also attain a competitive advantage, resulting in a more sustainable business model.

### **Competing Theories**

Effective research involves choosing the most appropriate conceptual framework and determining which frameworks are not appropriate. Qualitative researchers explore a business problem through a specific conceptual lens chosen to view the phenomena. The RBV theory was an appropriate conceptual lens to explore the business problem for this study, which was that some manufacturing business leaders lack strategies to diversify lines of business for sustainability. While some researchers used different theories to explore what strategies manufacturing business leaders use to diversify lines of business for sustainability, the RBV incorporates elements of competing theories. Following is an examination of theories that did not align adequately with the purpose of this research study.

#### ***Knowledge-Based View (KBV)***

In contrast to the RBV theory is the KBV, which highlights the importance of knowledge as a resource. Knowledge in organizations influences strategic management thinking and strategy implementation in organizations (Savino & Shafiq, 2018). Knowledge has valuable characteristics that make it a strategic resource within organizations (Costello, 2019). Gu, Jitpaipoon et al. (2017) said knowledge is an

intellectual asset and the main driver of superior performance, leading to having a competitive advantage. Sen (2019) said knowledge is the most important resource of an organization. Additionally, Novianti (2019) said while material resources decrease when used, knowledge assets increase due to learning in more depth about the organization and how it functions best. Such assertions support the importance of knowledge as a strategic resource rather than simply a generic resource.

Researchers who adopt KBV highlight the unique qualities of knowledge to demonstrate why knowledge is more important than other resources. Costello (2019) asserted that knowledge is the only resource that is difficult to imitate while other resources, i.e., products and services, are easy to duplicate. Furthermore, knowledge is usually regarded as two types: tacit and explicit (Maravilhas & Martins, 2019). Tacit knowledge refers to knowledge gained from one's experiences and is subjective. Explicit knowledge is written down and represented in documents, manuals, etc., in organizations. The ability to leverage both types of knowledge in an organization leads to innovation and competitive advantage. An organization that possesses innovative knowledge can produce innovative products, grow, and sustain its competitive advantage (Maravilhas & Martins, 2019). An organization with KBV would then find ways to leverage resources and achieve sustainability, despite initial limits on external resources.

The KBV of the firm emphasizes knowledge as the most crucial resource available to business leaders and managers. KBV refers to understanding knowledge to be the primary source of competitive advantage in an organization (Gu, Jitpaipoon et al., 2017). Novianti (2019) argued that KBV creates a new view of an organization that is

dynamic and innovative, and that knowledge is the center of knowledge production and application. However, the limitation of KBV is that it conceives both tacit and explicit knowledge as an objectively definable commodity (Belso-Martinez & Diez-Vial, 2018). Researchers who adopt the KBV imply that knowledge is as flexible as tangible resources in organizations and can be controlled and exploited. Though KBV perceives knowledge as an asset, the ability of manufacturing business leaders to turn this asset into a tangible resource may be lacking. For the purposes of this study, the KBV was not the best conceptual framework to use to study competitive advantage in manufacturing organizations.

### ***Porter's Five Forces***

Among management strategy theories, Porter's five forces framework has been widely influential. Michel E. Porter's (1989, 1990) five forces model is one of the best-known theories regarding management strategy and industry analysis (Napshin & Marchisio, 2017). The underlying premise of the five forces model is that an organization can improve its competitive advantage by mastering the external environment (Clauss et al., 2019). The five forces are (a) bargaining power of customers, (b) bargaining power of suppliers, (c) intensity of existing competitive rivalry, (d) threat of new entrants, and (e) the threat of substitute products (Porter, 1991). Unlike the RBV, the five forces model places greater attention on external conditions that may affect a firm's profitability and sustainability.

An organization can analyze its current situation in the market in a structured way by utilizing the five forces model. However, the model has limitations. Porter assumed a

perfect and static market, which is unlikely in the 21st-century, which has a dynamic market structure. Complex structures are now more common in organizations.

Complexity can make it difficult to apply, analyze, and create parallel conditions using the five forces model (Novikov, 2018). While Porter's five forces model is used to measure the competitive environment within an industry, it considers only external factors in that analysis (Jaya & Yuliarmi, 2019). Organization leaders can use the model to determine the strengths and weaknesses of their competitors. However, it does not consider any internal factors of the organization itself.

By contrast, researchers who adopt the RBV consider leveraging an organization's internal resources and capabilities as the key to securing a competitive advantage. Five forces is an outward-facing model, while RBV is an inward-facing model. The two theories use competing units of analysis. Porter's model includes the industry as the unit of analysis, while the RBV includes an individual organization or a single resource as the unit of analysis. There are some similarities between the two. In both models, reaching a sustainable competitive advantage is the goal, but the sustainable competitive advantage is defined in different terms in each theory. Sustainability in the five forces model is attained when the profits are sustained over time. In the RBV model, sustainability is reached when a competitor's efforts become redundant (Lee et al., 2020). Though Porter's five forces and RBV can be viewed as two sides of the same coin in determining competitive advantage and creating sustainable strategy in some organizations, the nature of the niche market in this case study's manufacturing organization is more closely aligned with the internal perspective of the RBV. For the

purposes of this study, Porter's five forces framework was not the best theory to use in creating value and competitive advantage in manufacturing organizations.

### ***Competitive Advantage Theory***

Researchers use the competitive advantage theory to assert that a firm can possess characteristics that enable it to supply goods and services at more affordable costs compared to competitors and are useful for use in tandem with RBV. When certain characteristics allow a firm to experience improved sales and increased margins, compared to rivals in the market, businesses can effectively diversify (Hirschey & Bentzen, 2016). Competitive advantage is connected to the possession of factors like cost structure, branding, product quality, customer service delivery, or intellectual properties (Lazzeretti et al., 2019). Having a competitive advantage creates value for a company if the firm exhibits certain strengths and conditions. Higher sustainability gives the firm more leverage in the long term because rivals will find it hard to duplicate or mitigate the advantage (Hitt et al., 2016). The theory is also discussed in terms of comparative and differential advantages.

A company's ability to distribute products and services more effectively than its competitors, which boosts the scale of profits, gives the firm a comparative advantage. Rational consumers are more likely to select a less expensive version of perfect substitutes (Mankiw, 2020). For example, a driver will buy gasoline that is 8 cents less per gallon in one gas station compared to those in the surrounding area. For other imperfect substitutes like Pepsi and Coke, increased margins for reduced costs for producers can encourage superior returns (Tabares et al., 2015). Strategic geographic



locations, effective internal systems, and economies of scale provide a firm with a comparative advantage (Hirschey & Bentzen, 2016). According to Peng et al. (2017), a Chinese company is more likely to supply certain products at lower labor costs and, as such, can provide reduced prices for the product. However, comparative advantage is not connected to an improved product or service; it only means that a firm can produce a product or service of the same value at more affordable prices (Hirschey & Bentzen, 2016). Achieving comparative advantage is one strategy business leaders may use to increase profitability, but business leaders may also need to consider product quality.

Companies may also achieve greater market share from a differential advantage. Differential advantage occurs when a company's products or services are so different from those offered by competitors that they are superior (Mankiw, 2020). Some characteristics that provide a firm with these types of advantages include more skilled labor, improved technology, superior brand identity, among others (Lazzeretti et al., 2019). In a study exploring the success of Apple, having effective product promotion strategies create their strong brand, and this property, among others, enables the firm to gain a larger market share and increased profit margins (Hirschey & Bentzen, 2016). Differential advantage involves attention to product cost, product quality, and marketing.

### ***Strategic Management Theory***

Strategic management theory is another influential framework for understanding how firms achieve competitive advantage. Strategic management theory posits that to gain the greatest competitive advantage, a firm must create a comprehensive set of operating plans which optimizes its resources and strengths through a pattern of decisions

(Dziewanowska, 2017). Koseoglu (2016) described strategic management theory as an eclectic field that explores how successful business strategies are developed by synthesizing concepts from many other fields, including management, economics, technology, and psychology. Strategic management theory encourages a highly individualized understanding of the firm. To create an ideal business strategy, a firm must independently identify its mission, values, strengths, and weaknesses (Carter et al., 2017). The firm must create a comprehensive means of optimizing its performance by keeping these concepts and resources in play through strategic choices, strategic positioning, and strategy in action (Carter et al., 2017). Strategic management theorists seek to identify the different holistic elements, which converge in a successful business strategy and explain why those elements make a business strategy successful.

Strategic management theory has changed and developed significantly to adapt to changing economic and technological conditions. Strategic management theory began in the 1960s and has evolved significantly since (Koseoglu, 2016). Early strategic management theorists primarily studied identifying methods for firms to gain competitive advantages in their immediate contexts (Dziewanowska, 2017). As global markets became more complicated, the importance of strategic management became apparent to both academics and businesspeople (Koseoglu, 2016). Strategic management researchers eventually began examining different international and intermarket considerations that a contemporary firm would need to participate in to thrive in a highly integrated global market (Dziewanowska, 2017). Strategic management theory came into a meaningful conversation with the RBV, as articulated by Barney (1991). While the RBV's core

concept of competitive advantage is generally compatible with strategic management theory, strategic management theory researchers anchor examples of competitive advantage creation to material examples of systems in their own contexts (Carter et al., 2017). Case studies in strategic management theory provide a means of understanding successful business plans in context, such as in the case of Lauer's (2019) cross-business study of innovative strategies in airline and grocery business plans. With strategic management theory, a researchers' unique approach to business plan analysis allows for a deep understanding of singular firms' behaviors. An RBV based study allows for a complete comparative analysis of one business practice common to several firms.

### ***Value-Based Theory***

Value-based theory was another important theory that may have been appropriate for studying diversification strategies of manufacturing managers. The theory of value depends on perceived use-value (consumer theory of the value) and exchange value (the price that is paid for the product) as distinct concepts (Seyhan et al., 2017). The separation between perceived use value and exchange value is essential to researchers because it demonstrates that the use-value of a good or service is a perceived value and that the latter is different from the price paid for the product (Harrison et al., 2019). The generation of use-value is essential for firms to reach sustainability. In the absence of use-value, firms have no added value, and there is no reason for them to exist (Baumgartner et al., 2019). The recognition that use-value is subjective suggests that the assets and goods of a firm are only valuable when someone perceives them as having value. In addition, individuals might have varying perceptions of the value of a good or

service, and consequently, resources and products will differ in value depending on an individual's perception (Porral & Stanton, 2017). Value creation is a specific activity that is aimed at a particular person and must have an individual towards whom the value is targeted, commonly, the customer (Keränen et al., 2020). However, value creation is not limited to clients but also extends to other actors. Firms create value for their supplies when purchasing the supplies, just as they create value for employees when paying wages (Harrison et al., 2019). Therefore, value creation is a multidirectional tactic.

The value-based theory accounts for areas that are vital for a company's survival, but as a conceptual framework, it was too narrow in scope to encompass the fullness of this study. Perceived use-value may be necessary but not a sufficient requirement for companies to maintain sustainability (Porral & Stanton, 2017). If profits were limited to perceived use-value, companies would not be able to gain returns from their efforts, and many firms would have minimal chances of survival (Keränen et al., 2020). Using RBV as the framework for this study permitted a more holistic approach to manufacturing business leaders seeking effective ways to sustain their business through diversification strategies.

### ***Competence-Based Theory***

The competence-based theory considers a firm's competencies in a dynamically transitional and disequilibria environment. The competency-based approach primarily focuses on the heterogeneity of firms (Baumgartner et al., 2019). The theory mainly weighs a firm based on its competitive advantage, the problem of innovation, learning, the structure, and its culture, considering the organization's history (Weigel & Hadwich,

2018). Researchers use this theory to observe the effects of human limits and conflicts and how the regulatory nature limits and conflicts allow for engagement in an evolutionary process (Baumgartner et al., 2019). The competence-based theory is a dynamic theory of the firm that is influenced by internal factors of an organization and differs from the neoclassical school of thought in which the focus is on profit maximization.

Organizational competence is fundamentally related to structure and social character. Competence in organizations is often regarded as economic information that cannot be transferred or reliably measured, and other scarce resources depend on it for business sustainability (Hilman & Warokka, 2011). The competencies of a firm are further dependent on management behavior before transferring the responsibility of organizational success to a firm's owners. According to Pechlaner and Innerhofer (2016), firms cannot maximize profits due to scarcity and therefore use competence as a resource. In competence-based theory, knowledge can only be learned by performing rather than through transference (Pechlaner & Innerhofer, 2016). Tacit understanding is gained through an internal source, and not all activities are contracted in a firm, as learning by doing helps a company grow even at an individual level (Baumgartner et al., 2019). Researchers use the competence-based theory to explain an organization's success or failure in two different ways, through an evolutionary manner and thorough information processing.

**Evolutionary.** Economic systems are sometimes compared to Darwinian systems as they can operate within the realm of *survival of the fittest*. In an economic context,

evolutionary can be parallel to successful firms surviving and unsuccessful firms dying. The evolutionary approach is one way of understanding pre-existing competencies and the lack of competencies that influence a firm's success. According to an evolutionary approach, the strongest firm is the one that survives, like what is seen in a natural selection approach to market competition (Baumgartner et al., 2019). In this environment, the activities of competitors are unpredictable, and so the evolutionary competence-based theory ensures that the process of development is observed in the aggregate. The evolutionary competence-based theory is bound by rationality, where firms are not maximizing but rather are complying with natural rules and regulations (Pechlaner & Innerhofer, 2016). The firm is linked to behavior based on innate abilities or competencies. These routine abilities can be preserved permanently if the owners are contented (genetic stability), or these abilities can experience alteration by alternative solutions/means (internal mutation mechanism). According to the evolutionary approach of the competence-based theory, the individual has limited power, thus making it implausible for manufacturing business leaders to use to secure competitive advantage and diversify business for sustainability by the action of individuals.

**Information Processing.** Information processing is an alternative approach to understanding the successes and failures of a firm based on understanding a firm's competencies and lack of competencies. A firm codes its information as rules (routines) as no one individual can remember all information necessary to ensure business sustainability (Swenson, 2019). The information processing view of the competence-based theory focuses on minimizing the cost of information processing (Hilman &

Warokka, 2011). Researchers note that in this approach, there is an inability for individuals in an organization to acquire information and to process it in a dynamic and changing environment, limiting a company (Swenson, 2019). Collecting and processing data in an organization is a rare and valuable resource. Due to the bounded rationality of firms with respect to the competence-based theory, they only have a competitive advantage when collecting and processing information inexpensively. With the competence-based theory, a firm should endeavor to minimize the cost of obtaining information and communicating (Hilman & Warokka, 2011). Firm leaders that can thoroughly understand their competencies efficiently and cost-effectively have the greatest chance of improving business outcomes.

### ***Dynamic Capabilities Theory***

Unlike competence-based theory, dynamic capabilities theory considers both the internal and external resources available to a firm. Under the tenets of dynamic capabilities theory, a firm possesses a unique characteristic that enables it to create new resources to respond to changes in the business environment (Baumgartner et al., 2019). The company can continuously update its capabilities to keep up with changes in the business environment (Teece, 2019). The company and members of management can develop strategies connected to changes in consumer tastes and preferences, advancements in technology, and in response to corporate issues (Portillo-Tarragona et al., 2018). The firm can validate and alter any of these strategies by modifying assets and activities. Superior dynamic capabilities enable a firm to perform better, depending on a new good and process advancements, a modifiable organizational culture, valuation of

the business environment, and technological opportunities (Teece, 2018). The related managerial strategies are entrepreneurial agility, asset orchestration, and future-oriented leadership.

Dynamic capabilities can be grouped into three essential categories. These are determined as the evaluation of threats, consumer needs and opportunities, a combination of resources to capitalize on new opportunities while creating value from doing the same, and consistent organizational transformation (Teece, 2018). Involvement in continuous and partially continuous transforming, sensing, and seizing is vital in the dynamic capabilities theory if the company is to remain current with customers, competitors, or technological advancements (Seyhan et al., 2017). Dynamic capabilities theory research suggests that positive business outcomes must consider not only the internal resources and competencies of a firm but also environmental conditions.

Dynamic capabilities also rely on individual managers, especially those who are at the top of the managerial team. These individuals are responsible for taking entrepreneurial initiatives to identify and exploit opportunities (Teece, 2018). At certain key times, the capability of a chief executive officer and managerial team to identify critical trends or advancements, establish a response, and guide the firm to the next step forward is perhaps the essential feature of the dynamic capabilities of the firm (Kaur, 2019). Dynamic capabilities are also connected to organizational culture, values, and the capability to execute a business model or other business plans (Teece, 2019). Dynamic capabilities theorists suggest that high-level managers act as a crucial link between the firm's internal organization and culture, and market conditions.



The dynamic capabilities theory also helps to explain why intangible resources like a company's intellectual capabilities are among the essential assets in multiple business industries (Kaur, 2019). Capabilities of importance can be attributed to the fact that capabilities, knowledge, and other intangible assets are rare and hard to imitate (Baumgartner et al., 2019). Dynamic capabilities must be cultivated through constant investment in learning, discovery, and knowledge creation (Teece, 2019). While the dynamic capabilities theory approach to organizational success has merit, it is too narrow to be used for a topic as broad as diversifying lines of business for sustainability. Therefore, an RBV based study allowed for a more comprehensive analysis of strategies manufacturing business leaders can use to diversify lines of business for sustainability.

### **Product and Business Diversification**

Product and business diversification are strategies that can be used by businesses and firms to achieve greater success, advancement, and sustainability. There are various methods of diversification and finding the right one can prevent failure (Hong et al., 2017). Ninety percent of companies that attempt to diversify outside of their core competencies have failed, and the key to success is to expand into logical adjacencies that have shared economies (Hong et al., 2017). This section provides a brief overview of several diversification strategies to provide a better understanding of how diversification can be implemented.

Diversification strategies are influenced by various factors. Research has found that diversification is significantly influenced by nonmarket, institutional factors such as institutional relatedness (Peng et al., 2017). Different types of institutional relatedness,

such as political ties and international experience, can link firms to political institutions and market institutions (Peng et al., 2017). Peng et al. conducted a multilevel regression from 11,992 firm observations of Chinese corporations. They found that political ties that a CEO may have can help access critical resources, find new market entry opportunities, and gain board support in increasing product diversification (Peng et al., 2017). The international experience of a CEO can enable him/her to leverage different market-based capabilities, engage in international competition, and allow a firm to grow through international expansion (Peng et al., 2017). Vertical diversification originates as user innovation within a firm and can lead to the creation of a new business that is part of the original firm and an integrated user-manufacturer firm (Schweisfurth, 2017). Vertical diversification involves user innovation to expand a business, and a firm can then become a supplier of tools and capital goods to its own competitors' businesses (Schweisfurth, 2017). Concentric diversification focuses on finding new business opportunities through a firm's existing core competencies related to existing products and services, such as technological capabilities (Hong et al., 2017). These methods of diversification each use existing opportunities from leaders, employees, and products and services within a firm to expand and improve business.

Diversification is an influential tool for businesses, and strategies for diversification can be found within the existing structure of a firm. The success rate of businesses that rely on existing core competencies related to their products and services to diversify is 70 to 90% (Hong et al., 2017). Diversification can reduce research and development costs, reduce the time to market, and can be used to create synergies with

other businesses (Hong et al., 2017). Finding the key opportunities and possibilities for diversification within a firm can make diversification a business strategy that brings high rewards quickly and with potentially less risk.

### ***Servitization***

Servitization is a type of manufacturing that can be used within organizations to diversify lines of business for sustainability. Servitization is defined as the transformational process through which a company shifts from a product-centric business model to a service-centric model and logic (Kowalkowski et al., 2017). Ultimately, servitization is a process that expands a business model to offer service solutions in the manufacturing business (de Souza et al., 2018). Servitization may provide business leaders that are struggling to revitalize their business models, change their market targets, and enhance their product offerings (Valtakoski, 2017). Servitization has a direct positive impact on the return of investment, and these investment returns are significantly higher in less economically developed contexts (Szasz et al., 2017). Servitization is a potential option for a business that comes with a lot of benefits, challenges, and changes within an organization.

Organizations may benefit in various ways by switching to service-oriented business models or added service-oriented marketing offers in their business. Privatization increases competitiveness, turnover, and market power for businesses (Kowalkowski et al., 2017). Servitization can also be used as a tool for increasing a company's financial position and is often a solution to a decrease in performance. Both struggling and healthy businesses can successfully implement servitization. However,

company leaders will need to deploy different resources depending on their financial position. For healthy companies, business leaders should focus on consumers as a resource during their transition, and for struggling companies, the business should focus on finding and developing strong relationships with partners in their supply chain (Böhm et al., 2017). Ambroise et al. (2018) indicated that there is a positive relationship between servitization and organization performance. Using a structural equation model and comparative qualitative analysis of 184 manufacturing firms, the researchers found that servitization strategies can improve financial performance if business leaders implement the specific customer-oriented organizational design (COOD). Despite the challenges of implementing servitization, it is one potential strategy that may help companies gain a competitive advantage.

Adding or switching to a service-oriented business model changes the culture and environment of an organization. The process involves changing the mindsets of employees who are habitually used to a product-centric vision and mentality. The difficulty of changing the mindsets of employees can be one of the main barriers that product-centric firms face as they try and gain from service-centric changes. Product-oriented organizational culture and business logic impede service growth, and the transition necessitates care (Kowalkowski et al., 2017). Organization leaders need to understand that changes to structure, culture and competencies are critical to the success of a new strategy (Adrodgari & Saccani, 2017). Servitization involves dramatic changes that may be difficult to implement unless overseen by knowledgeable business leaders.

There are several important steps and actions that need to occur within an organization as it makes its transition to a service-centric business model. In order to foster a service culture, customers and key partners need to be involved in co-creation throughout the service process. If the alignment of business logic between these parties is not achieved, then a service initiative is not likely to succeed (Kowalkowski et al., 2017). The servitization transition also requires strong leadership skills that go beyond the skills necessary to develop a service business within a product firm or nurture a service culture. Leaders during this transitioning process need to be agile and withstand new competitors (Kowalkowski et al., 2017). Current employees may resist servitization, but a shift to servitization can be helped or hindered by the current staff. Manufacturing business leaders need to identify and use specific tactics to succeed at servitization from an internal individual level in the company. In their exploratory multiple case study of six multinational industrial firms, Lenka et al.'s (2018) indicated that these tactics include leveraging, evangelizing, and collaborating to bolster the acceptance by staff of servitization. The transition to servitization can be difficult to navigate, but the best way to deal with it is to be ready on all fronts in the organization as the transition is made.

Total quality management and creating partner networks are also important to organizations during their transition to servitization. Focusing on the supply chain in a service-oriented business is important in delivering customer satisfaction and value. Gu, Song et al. (2017) conducted a case study of Heilan Home to study supply chain quality management (SCQM) in service-oriented manufacturing industries. Total quality management practices must be implemented and consistently carried out to ensure a

functioning and successful service-oriented supply chain (Gu, Song et al., 2017). Total quality management strategies are important to the overall transition strategy for servitization and can be used to improve the acceptance of this transition by customers (Gu, Song et al., 2017). As businesses transition to servitization, business leaders may not have fostered the networks needed to provide the necessary products and services. To amend this, organization leaders can create partner networks to aid in fulfilling customer demands. Weigel and Hadwich (2018) conducted a quantitative study of 257 subjects to measure six identified success factors on service networks during servitization. The six factors were the process of selecting partners, partner management, communication, service level agreements, customer orientation, and professional competence. The results of Weigel and Hadwich's study indicated that there is a significant positive relationship between all six of these success factors and their impacts on the overall performance of the servitization network. Total quality management and creating partner networks may add to the success of a business undergoing servitization.

There are two methods for implementing privatization that is most common to manufacturing businesses. Bustinza et al. (2017) conducted a qualitative case study of the UK's road transport industry. They interviewed 14 senior executives from seven companies to explore managers' risk perception of servitization. Bustinza et al. found that manufacturing companies achieved servitization by applying an innovative business style. The results also indicated that either method could be transformative or integrative for an organization. Bustinza et al. found that partnerships can provide strategic information for a better understanding of servitization and that companies with more

knowledge and information about the value of servitization perceive lower risk and prefer in-house development, retaining control of labor skills and specific knowledge. Lastly, the results showed that understanding relevant technology reduces the risk associated with risky innovations and implementations. Lachiewicz et al. (2018) completed a case study of an office furniture supply company in Poland to examine the key features, stages, advantages, and threats of servitization as a concept for managing the development of small and medium-sized enterprises. The results indicated that small and medium-sized businesses achieved success in implementing privatization in stages where an organization can identify and isolate the advantages and threats of the implementation. Being aware of the threats, challenges, and risks of privatization is important to its success.

Servitization failure and deservitization are two concepts that are important to address before making the transition to a service-oriented business model. Servitization failure is when a business organization was not successful at developing a comparable service product. Deservitization is when an organization reduces the role of service in their new servitized business or when an organization abandons the concept altogether (Valtakoski, 2017). In a review of the literature on servitization, Valtakoski (2017) offered several reasons for servitization failure and deservitization, such as realignment with the organization and the services it provides to what the customers want. Understanding what causes servitization failure or deservitization is important to consider when making the decision of whether servitization is the right process for a specific manufacturing organization.

Servitization comes with many risks and challenges throughout its process and being aware of the risks and all possible outcomes is essential to make the process as successful as possible. In their review of the literature on servitization, Zhang and Banerji (2017) identified five challenges to implementing a servitization strategy the first time around. These five challenges are organizational structure, business model, development process, customer management, and risk management. The results of the study indicated that when company leaders overcome challenges, the business is more likely to be profitable and retain customers. Developing a consistent service strategy helps implement a successful servitization strategy (de Souza et al., 2018). These studies indicate that knowledge of challenges and risks is important to consider before undergoing servitization.

Servitization is a process that encompasses a transformation to a service-centric business model and logic, and it comes with benefits, challenges, and risks. Declining profitability has led manufacturing leaders to explore different sources of revenue to remain competitive, relevant, and sustain the business, and servitization is one option that these businesses can take (de Souza et al., 2018). Industrial organizations are increasingly offering service products to increase revenue and build sustainability (Adrodegari & Saccani, 2017). As a result of undergoing servitization, organizations may also undergo cultural and attitudinal changes that need to be addressed with specific tactics and strong leadership (Kowalkowski et al., 2017). Reviewing the best ways to implement servitization and the challenges and risks that may result in servitization failure or deservitization is integral to the potential success of the servitization process in an



organization. A strong connection exists between servitization and RBV's theory of implementing a service-oriented business model. Because manufacturing leaders often create new processes and practices to revitalize their resources and the use of those resources, the tenets of innovative quality management and co-creation within a company serve to diversify and maintain sustainability.

### **Internal Resources**

The following section includes a literature review of internal resources and their relationship to competencies, capabilities, and the competitive advantage of a firm. RBV is a managerial framework that focuses on the importance of resources such as assets, capabilities, organizational processes, firm attributes, information, and knowledge, in achieving a sustained competitive advantage for a business (Baumgartner et al., 2019). RBV theory is a framework for understanding how resources are tools to achieve competitive advantage and can bring a large contribution to the strategy of companies as consumer preferences and the external environment rapidly and constantly change (Pigatto et al., 2019). Researchers have also argued that companies are a collection of their resources, and their competitiveness is based on the heterogeneity of their resources (Pigatto et al., 2019). Resources can be defined as specific assets, tangible or intangible, which are difficult and near impossible to imitate (Baumgartner et al., 2019). The uniqueness of resources is central to the competitive advantage of a firm in relation to other firms and businesses.

There is a distinction between internal resources, factors that are controllable, and external resources, factors out of the control of a business. The RBV of strategic

management is built upon the idea that the internal characteristics of a firm are key factors in affecting innovation (Ab Rahman et al., 2018). Internal factors and resources have a greater influence in forming an effective business model but need to be adaptable to changes within the business environment (Ab Rahman et al., 2018). Pigatto et al. (2019) conducted a gray relational analysis of food companies in the Brazilian state of São Paulo. The researchers conducted a quantitative study of 35 different factors grouped into four categories, which were then presented to 24 companies. Factors linked to human and organizational resources are seen to have greater adaptability, which allows companies to stay competitive and sustain their advantages (Pigatto et al., 2019). However, the identification and adaption of these internal resources do not guarantee the achievement of sustainable competitive advantage since external factors such as economic blocks and commercial agreements are outside of a company's control (Pigatto et al., 2019). Focusing on controllable internal factors and keeping them adaptable is the best path to achieving a competitive advantage within a business.

Resources can take various configurations. Resources for businesses can include financial, physical, human, technological, organizational reputation, physical capital, human capital, organizational capital, and financial resources (Pigatto et al., 2019). Internal resources are specific to companies making them difficult to imitate by competitors (Pigatto et al., 2019). Internal resources include natural factors such as (a) geography and rare materials; (b) legal and institutional mechanisms such as trademarks, patents, market reserves, and property rights; and (c) economic and organizational factors (Pigatto et al., 2019). Internal resources and resources for business can take many forms.

Most centrally, according to the RBV, resources make a company unique enough to be competitive in a market.

Physical resources, financial resources, and organizational resources were found in the literature to have different degrees of influence over competitive advantages and were influenced by a variety of factors. Physical resources such as access to raw materials and physical facilities showed greater importance to companies maintaining competitive advantages and production efficiency (Pigatto et al., 2019). The most important factors related to financial resources were found to be compliance with deadlines, competitive prices in the international market, and access to credit (Pigatto et al., 2019). The maintenance of even temporary competitive advantages in financial resources is only possible while maintaining transactional efficiencies and meeting service delivery deadlines (Pigatto et al., 2019). Factors that formed organizational capital resources were found to be company management, production and quality control, company image quality abroad, and the need for certifications to access foreign markets (Pigatto et al., 2019). Organizational resources require greater adaptability to allow companies to gain a sustainable competitive advantage (Pigatto et al., 2019). Intense competition between businesses forces organizations to create strategies that differentiate them and maintain their position (Seyhan et al., 2017). The internal resources listed above and the factors that influence them are the building blocks to create these strategies.

A firm's capabilities and competencies are influenced and related to the firm's internal resources. The RBV proposes the concept of dynamic capabilities, which are a firm's ability to integrate, build, and reconfigure internal and external competencies to

address the rapidly changing environments (Baumgartner et al., 2019). For a company to develop its core competencies to cope with the economic environment, there must be an integration of talent, technology, systems, and business value of managerial behavior (Seyhan et al., 2017). Seyhan et al. (2017) analyzed 203 questionnaires collected from the top and mid-level managers of machine-made carpet manufacturers in Turkey. The researchers found that strategic capabilities are an accumulation of the skills and knowledge of a firm that enable a sustainable competitive advantage for the long term through technology, product development, production processes, marketing, logistics, and managerial skills (Seyhan et al., 2017). Portillo-Tarragona et al. (2018) conducted five case studies of different industries in Spain to study the economic-financial and environmental resources and capabilities of each firm's eco-innovation projects. Their analysis revealed a clear relationship between a firm's resources and capabilities and a high level of outcomes (Portillo-Tarragona et al., 2018). Overall, internal resources have a relationship to a company's capabilities and competencies. Business leaders need to ensure that a firm's resources, capabilities, and competencies remain adaptable to achieve sustainable competitive advantage within a changing economy (Portillo-Tarragona et al., 2018). Leveraging a company's resources to achieve competitive advantage involves adapting those resources to the external conditions in which the firm exists. This study examined how manufacturing leaders use diversification. Whether or not diversification strategies are effective may be related to the extent to which diversification strategies exhibit adaptability to external economic changes.

### **Leader's Role in Strategy**

In a business, manufacturing leaders often play a key role in diversification for sustainability. Leaders in the field ultimately make key decisions on manufacturing, which can apply to more sustainable practices in manufacturing. In many instances, diversification in manufacturing can decrease the negative economic impacts of manufacturing practices (Mishrif & Al Balushi, 2018). Additionally, more effective managerial skills can help manufacturing leaders improve their workforce and productivity, which improves outputs and sustainability in return (Mishrif & Al Balushi, 2018). Management can improve diversification and evolve manufacturing practices to ensure alignment between objectives and resources available (Parnell & Brady, 2019). Leaders may play a key role in improving economic outcomes for manufacturing businesses.

In the manufacturing industry, leaders can use strategic planning to implement diversification and improvement of the workforce (Parnell & Brady, 2019). Parnell and Brady (2019) surveyed 215 managers in the U.K. Their quantitative survey analysis revealed that nonmarket strategies were significantly linked to financial performance. Strategic implementation of diversity can help ensure that leaders adequately adjust to the needs and behaviors in the workplace (Parnell & Brady, 2019). Numerous issues impede the ability of manufacturing leaders to diversify their employee population. According to Johansson (2019), some of the most prevalent issues are related to discrimination, lack of investment on the part of the employer, and limitations of the employee, such as lack of

access to transportation or drug histories. Each of these issues presents unique challenges that may inhibit leaders from successfully diversifying.

Manufacturing leaders must systematically address the issues that have been identified by researchers to diversify business successfully. While there are many opportunities to improve sustainability and diversity in manufacturing, there are some changes that can have an outsized impact on any given issue. Opportunities to address barriers to diversification include transportation, legal services, education, information sharing, increasing wages, incentivizing manufacturing careers, increasing outreach, increasing training, and more (Johansson, 2019). Johansson conducted focus groups and interviews of 23 individuals from the business community, local government, and community members to examine how organizations in Buffalo, New York, navigate efforts to diversify the workforce. By addressing these issues, leaders are more likely to not only attract high-quality applicants and employees but also maintain them (Scheepers & Maher, 2019). Systematically addressing the known issues to diversification has the potential to improve business outcomes significantly in the manufacturing industry.

By improving the issues preventing diversification, leaders can create a competitive advantage, however. Perhaps more importantly, diversification allows companies and businesses to adapt to the changes in the industry and in the environment (Scheepers & Maher, 2019). Scheepers and Maher (2019) conducted a qualitative study by interviewing 15 South African executives with 21 years of average experience to explore successful diversification strategies. In addition, diversification allows businesses to address their products and markets more critically, ensuring the long-term success of

the business (Scheepers & Maher, 2019). Once leaders have addressed some of the baseline concerns in attaining and maintaining a diverse staff, they will be more equipped to handle day-to-day concerns, such as improving behaviors and skill sets to improve performance (Parnell & Brady, 2019). Diversification may have a significantly positive impact on a business. Diversification may improve efficiency in daily business operations and may improve long-term profitability.

In addition to addressing internal concerns, businesses and leaders must address external factors that impact their operations (Parnell & Brady, 2019). By improving contextual knowledge and sensitivity, management will be more equipped to alter and adapt their strategies to the current needs of the business (Mishrif & Al Balushi, 2018). An important factor that leaders must be aware of as they implement diversification strategies is time. Implementing new practices too quickly can cause bottlenecks and poorly adapted structures (Scheepers & Maher, 2019). Although diversification may lead to significantly improved business outcomes, the manner in which leaders approach diversification may positively or negatively impact the outcomes of diversification.

### **Barriers to Strategy Implementation**

An organization must be able to enact well-considered, well-developed business strategies to attain a competitive advantage. As Geissdoerfer et al. (2018) outlined, a sustainable business model contains a set of enduringly adaptable business strategies. In the absence of strategies, competitive advantage cannot be attained. Though barriers to strategic implementation can profoundly challenge a business' growth, they can also encourage businesses to recalibrate their strategies and allow organizations to compile

new types of research. Engaging in innovative strategies changes a company's concept of the market (Garcés-Ayerbe et al., 2019). The following section gives an overview of several different types of challenges business owners and leaders may encounter when attempting to develop and implement business strategies, as discussed in other studies of business diversification and business strategies more generally.

One potential barrier to strategy implementation is dissonance between brand identity and firm goals. As Davies et al. (2019) discussed, many small to medium firms contend with existing for reasons beyond solely profit creation. Davies et al. conducted a phenomenological multiple case study of three social enterprises in the personal health and natural lifestyles industry in Western Europe. The researchers identified numerous barriers faced by social enterprises, including competing for ethical values between founders and stakeholders, difficulty accessing necessary resources, and lack of identity authenticity. Many of these firms' customers are attracted to the ability to buy a product that supports a particular socio-political mission. Consequently, an expansion in manufacturing size often means that certain ethical concessions must occur during the production process. The act of making ethical concessions can estrange a firm from dedicated customers, who understand a lack of growth as a marker of morally driven sacrifice (Davies et al., 2019). As Bernardino et al. (2018) discussed, customer disloyalty is a common market feature, particularly when customers can switch to a competitor at little cost. Bernardino et al. administered a survey to 140 individuals working in project management in Doha, Qatar, to examine the failures and successes of project management consultants. Through quantitative analysis of the survey data, the



researchers found that if a high-quality substitute that fills a product's niche is created, a firm loses the competitive advantage. Commercial growth may allow a firm to perform in the marketplace, allow employee wages to grow, and allow the scope of the firm's mission to expand more ably. However, if the firm's mission is seen as tainted by the desire for profit, the firm is taking a substantial risk (Davies et al., 2019). Striking a balance between upholding the firm's stated values and making compromises necessary for expansion may help business leaders improve business outcomes while also retaining customers.

Lack of familiarity with adjacent markets that could allow the firm to diversify is another barrier to strategy implementation. Lassalle and Scott (2018) conducted a phenomenological analysis drawing on context-rich data collected from observations, field notes, and semistructured interviews of twenty first-generation Polish immigrant entrepreneurs in Scotland. Lassalle and Scott discovered that while these entrepreneurs were able to leverage their social capital and understanding of their own diasporic tendencies to create businesses, which served the needs of their own community, many of them struggled with conceptualizing effective methods of expanding their businesses into other markets. While some of the entrepreneurs Lassalle and Scott studied were able to build a business that expanded to serve people outside of the Polish diasporic community in which it originated, these entrepreneurs' strategic approaches were often wholly focused on responding to community needs. Consequently, while these businesses were able to sustain themselves, their growth prospects were hindered by a limited conception of how growth may occur.

Supplier-related difficulties can also meaningfully impact strategic business models. Bernardino et al.'s (2018) found that the power of suppliers had a tremendous impact on business profitability, both in the short-term and in the long-term; without consistent, reasonable input prices, businesses cannot effectively sell their wares and cannot effectively budget projects for themselves or clients. Similarly, Davies et al. (2019) demonstrated the importance of consistency from suppliers; without consistent lines of distribution, the Polish entrepreneurs' businesses could not compete in the market, as their supplier base is more limited and the supply chain infrastructure for their businesses is still developing in Scotland. Contingency plans for supplier-related setbacks are extremely important for gaining a material advantage.

Risk aversion from shareholders is another potential barrier to strategy implementation, which has applicability to diversification. Sahni and Juhari (2019) described diversification as risk leaders undertake at shareholders' expense, which may or may not have positive impacts on risk management and growth. While a successful track record of diversification may encourage investors to work with a firm, new introductions of diversification may cause a sense of unease among present shareholders and potential investors.

Inconsistency in firm identity, lack of familiarity with markets ripe for diversification, supplier-related difficulties, and risk aversion from shareholders all threaten those looking to implement new business strategies. Through diligent knowledge creation regarding these potential setbacks, businesses have a greater potential for growth, both in their immediate attempts to diversify and in their long-term outlook

(Garcés-Ayerbe et al., 2019). Without a clear-cut, practical, and logical infrastructure for business diversification, business leaders are threatened with potential setbacks.

### **Summary**

In this literature review, I assessed the conceptual framework being used in a study and explored theories that may exist in other literature that compete with the information being presented. In this study, the literature review included an analysis of product and business diversification, the importance of internal resource management, the strategic role a leader plays in business, and potential barriers to the implementation of the strategy. The literature review provided the conceptual background of the research and problem, which was to analyze the strategies manufacturing business leaders use to diversify lines of business to achieve sustainability.

This study adopts RBV theory as a conceptual framework. The RBV theory has been chosen due to its efficacy in identifying resources and strategies used by manufacturing business leaders to ensure a competitive advantage and diversify their businesses and attain sustainability. The tenets of this theory allowed for a review of the resources being used to both maximize advantage and also minimize disadvantage. In a study intended to illustrate the ways in which business leaders achieve sustainability and advantage, both tactics are important, and using both at once is ideal. This framework is also commonly used by manufacturing business leaders as they work to find sustainable business practices through diversification strategies. The RBV theory is based on the notion that: an organization will develop according to the investment of leaders in using evolving resources, a sustainable competitive advantage can be secured using productive

resources, and leaders are expected to develop and utilize strategies to increase their competitive advantage (Penrose, 2009). In addition to being a commonly used theory in the field of manufacturing business and competitive advantage, RBV theory provides an assessment of strategies that align with the goals and actions of manufacturing business leaders. This study, then, may be usefully applied by manufacturing business leaders in the future to test its accuracy.

Other theories that were not selected for the conceptual framework of this study included: resource-based theory, knowledge-based theory, Porter's five forces, competitive advantage theory, and strategic management theory. Resource based theory is based on the utilization of resources to gain and hold a competitive advantage, while this study seeks to analyze strategies being implemented (Carter et al., 2017).

Knowledge-based theory posits that knowledge is an asset itself but also cannot be utilized as a strategic tool across a manufacturing business, making it inappropriate for this study. Porter's five forces is a theory that also assesses competitive advantage and sustainable strategy but is more often shifted to external practices. Porter's five forces define sustainability as sustained profits, while this study seeks to define sustainability as the point at which a competitor's efforts become redundant (Lee et al., 2020).

Competitive advantage theory is often used alongside RBV but emphasizes the ability of a business to offer more competitive prices to gain competitive advantage, rather than strategic use of product and business diversification (Hirschey & Bentzen, 2016).

Strategic management theory is used to analyze one business rather than one practice

utilized by many businesses, meaning it was not an effective conceptual framework for this study.

In this study, I addressed the potential failure of manufacturing businesses as a lack of diversification of business strategies. Specifically, some manufacturing business leaders are unable to strategically diversity lines of business to achieve sustainability. This study sought to find what strategies effective manufacturing business leaders use to diversity lines of business for achieving sustainability. By using RBV theory as a conceptual framework, this literature review provided a critical and thorough background on the exploration of strategies manufacturing business leaders use to diversify lines of business to achieve sustainability. Diversification is an important tool in business sustainability because it could result in loyal employees, effective workmanship, and other strategies to fulfill the businesses' mission and vision. The business can also then remain a responsible pillar of the communities it serves. This study could find ways in which manufacturing business leaders are able to contribute to positive societal change by way of employee engagement and opportunities, which could provide positive value to the local economy and positive socio-economic value to the employees and their families.

### **Transition**

In Section 1 of the study, I discussed the basis of the study, which outlined the scope and breadth of the study through the identification of the problem statement, research question, and purpose statement. Penrose's RBV was the conceptual lens to view to answer the research question grounded in current and relevant academic

literature. To ensure transparency and objectivity, I identified the assumptions, limitations, and delimitations of the study and highlighted the importance of the topic through the significance of the study.

In the final section of Section 1, I presented the relevant academic literature. The review of the literature included the conceptual framework, Penrose's RBV, and relevant research on the business problem that applies to managers' pursuit of sustainable diversification strategies. The criteria used for relevant literature were peer-reviewed articles within the last 5 years. I further identified in the literature review the relevancy of the conceptual framework as well as schools of thought and conflicts in the literature. Additionally, I discussed Penrose's RBV theory and its application to manufacturing managers in the pursuit of sustainable and profitable diversification strategies.

Section 2 contains an in-depth description of the project of the study and includes a comprehensive analysis of the study purpose, the role of the researcher, participants, research method and design, population sampling, ethical research considerations, data collection and analysis techniques, and the reliability and validity of the data. I also explain the methods I took to ensure participant protections as a human subject and explain how I stored and retained study data.

In Section 3, I detail my use of the Baldrige Performance Excellence Program (2019) as a tool to conduct a comprehensive analysis of my client organization XYZ and the interview questions used to collect data for the qualitative single case study. The Baldrige Program criteria helped me evaluate the strengths and opportunities for the improvement of Company X's business operations. In alignment with the 2019 Baldrige

Performance Excellence Program, I explored the client organization's leadership, strategies, customers, workforce, operations, and results. Section 3 begins with the client organization's key factors worksheet, the leadership triad of leadership, strategy, and customers; results triad of the workforce, operations, and results; collection, analysis, and knowledge management; and the section finishes with the project summary, contributions, and recommendations.

## Section 2: The Project

Manufacturing business leaders who are struggling to revitalize their business models are enhancing their product offerings to include service-centric models to improve sustainability (de Souza et al., 2018). Manufacturing business leaders need effective diversification strategies to gain a competitive advantage and achieve sustainability. In Section 2, I provide the purpose of the study, research method, decisions regarding the research design, and details regarding justification of the study. In this section, I document procedures of the study, including the role of the researcher, participant selection process, data collection, data organization, data analysis, and reliability and validity of the study.

### **Purpose Statement**

The purpose of this qualitative single case study was to explore the strategies manufacturing business leaders use to diversify lines of business for achieving sustainability. Three business leaders of a manufacturing organization located in the northeastern region of the United States were the target population. Participants were required to have successful experience implementing diversification strategies for sustainability. Diversification could enable business leadership to rehire long-term and loyal employees, thus fulfilling the business mission and their commitment to being responsible business partners in surrounding communities. The findings of the study may contribute to positive social change through the increase of employment opportunities, which should add to the stability of local economies and improvement of socioeconomic conditions for employees and their families.



### **Role of the Researcher**

For this qualitative single case study, I served as the primary instrument for the data collection. In qualitative research, the researcher is the primary instrument for the collection of data and data analysis (Karagiozis, 2018). The role of the researcher in the data collection process is to access, document, and analyze participants' thoughts and feelings regarding the study topic (Cumyn et al., 2018). Because the researcher is a human instrument, in addition to mediating data and ensuring ethical protocols, the researcher must acknowledge any bias or assumptions they may bring to the research. The researcher's role in a qualitative single case study is to conduct quality research on the topic. A researcher must read and understand relevant literature, formulate proper questions, follow ethical standards, and protect participants' privacy (Yin, 2018). The researcher's role is to collect data and maintain objectivity by keeping a professional distance from participants (Belotto, 2018; Karagiozis, 2018).

As the researcher, I worked within budget and finance constraints of nonprofits and had no direct prior experience working with for-profit manufacturing businesses. Additionally, I possess a Lean Six Sigma certification (designed specifically for manufacturing processes to be successful), which helped me focus on lean processes to maximize productivity. While business leaders traditionally apply Lean Six Sigma in manufacturing environments, it has more recently been applied to business environments, and using Lean Six Sigma processes can influence functionality in all business situations and organizations. Approaching this study from both a manufacturing and business

perspective helped me to understand my organization's needs for diversification, sustainability, and profitability.

My previous experiences in problem identification, solution building, and human resources consulting, as well as 10 years of management experience in a Fortune 500 company influenced the design of the study. My management experiences involving small businesses with fewer than 50 employees informed the study's research questions. To address organizational needs and meet specified goals, I developed a strategy based on my prior experiences in business, which informed the framing of the study topic as well as research and interview questions. These prior experiences also informed data interpretation.

Conducting qualitative research requires that researchers reflect on their own experiences and recognize how those experiences can affect interpretations or outcomes of the study. This enables researchers to provide context for the reader. To understand the potential influence of my own experiences regarding outcomes of the study, I used a framework that involved four domains for ensuring ethical research practices, identifying equitable and just research, understanding relationship dynamics, and ensuring researcher accountability. I also ensured the application of ethical research by following the principles set forth by the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research in *The Belmont Report*.

Consulting capstone requirements stipulated responsibilities of each party involved. Walden's senior leadership and the client-organization leader agreed and signed the DBA Research Agreement. Additionally, according to consulting capstone

requirements, participants must volunteer to be interviewed and sign consent forms (Appendix A) before data collection begins. According to *The Belmont Report*, researchers must adhere to the following ethical principles: respect for persons, beneficence, and justice. I followed these ethical principles to ensure study participants' autonomy, minimize their risk, and protect them from harm. To abide by Walden's Institutional Review Board (IRB) requirements, I used preapproved data sources and tools. The IRB has discretion in ensuring the ethical conduct of research at the university. Before collecting any data for my study participants and client organization, I obtained IRB approval. Sources of data included interviews, internal organizational documents, and documents obtained from the Internet.

Preconceived knowledge of a subject can affect participants and interpretation of the results (Erlingsson & Brysiewicz, 2017). Bias management is a significant challenge for qualitative researchers (Galdas, 2017). The best way to mitigate personal biases is first to accept they are present, then identify bias during analysis of research (Savelle, 2018; Walden University, 2020). Identifying and mitigating personal biases beforehand, increases the credibility of the research study. For this study, participants reviewed interview transcripts to mitigate bias and verify understanding and context. Methodological data triangulation occurred via multiple sources of data. With methodological triangulation, researchers use more than one option to gather data (Denzin, 2017). If different research methods lead to the same conclusion, then they reflect what is truly occurring.

For this study, I triangulated interviews, reviews of company documents available on the Internet, and member checking. Building trust and rapport with leaders was instrumental in gathering data. The use of triangulation in qualitative research allows the researcher to verify participant interview details through document review and other sources.

Researchers often use interviews as a method of analysis in qualitative research. A postpositivist approach to a case study involves developing a clear interview protocol with careful consideration of validity and potential bias (Yin, 2018). The interview protocol for this study involved identifying potential benefits and risks of the study for each participant (see Appendix A). I also sought informed consent before conducting each interview. One interview protocol framework detailed four phases of qualitative interviewing aimed at strengthening interview reliability: ensuring the alignment of interview questions with research questions, creating an inquiry-based conversation, receiving feedback from participants on the protocol, and piloting the protocol (Castillo-Montoya, 2016). Further refining the interview protocol helps to improve quality of data obtained from the interviews and helps the researcher develop the most appropriate and valid data mining procedures for the study. Following the interview protocol with each participant ensured adherence to ethical guidelines.

### **Participants**

Participants in this study were manufacturing business leaders who served as key members of management in the client organization located in the northeastern region of the United States. Participants were searching for ways to diversify revenue to sustain

growth in the organization. To sustain the business, they were willing to participate in this study and undergo the discovery process as described by the Baldrige Performance Excellence Program. The discovery process is designed to introduce organizations and their leaders to the business improvement framework. Manufacturing business leader participants were a chief executive officer (CEO), chief operations officer (COO), and chief financial officer (CFO). To be eligible for this study, participants needed to be actively employed in the organization and had successful experience implementing strategies to diversify lines of business for achieving sustainability.

As a scholar-consultant participating in the consulting capstone, I was introduced to the client organization after organization vetting by Walden University administrators. Once the IRB approved the study, I began weekly discussions with the organization leader to gain an understanding of objectives as well as consulting capstone relationship and expectations. From these conversations, the organization leader and I identified people in the organization who could offer the most valuable information regarding the history of the organization and financials, understood current challenges the organization faced, and had successful experiences implementing strategies to diversify lines of business for achieving sustainability.

To establish rapport with the organization leader, I focused on his desired outcomes for the project and tailored discussions to his interests regarding the sustainability of the business. Researchers have a responsibility to participants to address expectations and barriers that may inhibit the research (Ferguson et al., 2017). The relationship between the researcher and participants is critical to the overall success of

the study. The purpose of this qualitative single case study was to explore strategies manufacturing business leaders use to diversify lines of business to achieve sustainability. Participants all worked for the client organization, understood the organization's unique challenges from a management perspective, and were interested in developing strategies to ensure its sustainability.

## **Research Method and Design**

### **Research Method**

Researchers choose between three methods: qualitative, quantitative, and mixed methods (Park & Park, 2016). The research method selected for this study was qualitative). Researchers need to make sense of subjective and socially constructed meanings expressed about the phenomenon they are studying (Korstjens & Moser, 2017; Saunders et al., 2016). Qualitative research is used to gain an in-depth understanding of experiences, thoughts, and opinions of participants. Using the qualitative research method allows researchers to dig deeper into the organizational problem via participants and focus on the broad context of an organization and business problem.

The quantitative research approach enables researchers to gain general knowledge about a subject and draw statistical inferences and apply them to a broad population (Park & Park, 2016; Saunders et al., 2016). Quantitative research is usually associated with a deductive approach when the focus is on using data to test theories and examining relationships between variables. Using a quantitative research method can reduce bias as there are fewer opportunities for personal experiences; results are numerical and fair (Maxwell, 2019). In exploring strategies manufacturing business leaders use to diversify

lines of business to achieve sustainability, data points were sparse, inconsistent, and varied, which made it difficult to generate quantitative results that could be replicated or applied to larger populations.

Quantitative research approaches are either descriptive or experimental. A descriptive study establishes associations between variables; an experimental study establishes causality (Dempsey, 2018; Thiele et al., 2018). Results are based on very large sample sizes that are representative of a population that can be broadly quantified. Data collected and the overarching research question for this study were specific to the client organization. Though results may be informative within the industry or to other industry leaders, replication may be difficult due to the uniqueness of the organization and business model. Therefore, the quantitative research method was not the best method to use in exploring the strategies manufacturing business leaders use to diversify lines of business to achieve sustainability.

Sometimes, researchers merge quantitative and qualitative methods. However, according to Saunders et al. (2016), mixing methods may be risky because there is a danger that the respective value of each form of data may be diluted, which can lead to loss of exploratory or explanatory richness. The mixed methods research design is often used to address more complicated research questions and develop an in-depth theoretical understanding (Maxwell, 2019; Saunders et al., 2016). Mixed methods research can aid in triangulating measurement strategies; however, this becomes less reliable when results are inconsistent. Inconsistent results are a byproduct of unmeasured influences (Vidgen et al., 2017). While in some cases it may be helpful to reexamine results using the

qualitative method, qualitative interpretations of quantitative data may yield skewed results (Dempsey, 2018). Clarification of results involved using qualitative methods to explain inconsistencies, which included validating information from participants and clarifying context. The focus of this study was to explore value-added strategies manufacturing organizations used to achieve sustainability through interviews, document reviews, and qualitative analysis procedures. Therefore, a qualitative research design was most appropriate for this study rather than quantitative or mixed methods research designs.

### **Research Design**

For this study, I considered four qualitative research designs commonly used for qualitative studies: content analysis, phenomenology, ethnography, and case study. After examining available designs, I chose to use a single case study as the research design for this study. The case study research design is preferable when the researcher cannot manipulate relevant behaviors and seeks to understand the why, what, and how of a phenomenon (Yin, 2018). Additionally, researchers often choose case study designs in exploratory research (Saunders et al., 2016). When researchers have limited resources, the use of a single case study can be useful for understanding a phenomenon (Lobo et al., 2017). Since the phenomenon I was studying regarding the strategies manufacturing business leaders use to diversify lines of business for sustainability was bound to a single case, I chose to use a single case study research design.

Content analysis was not the optimal choice for this study as my participating organization did not have formalized content of past or current processes to review. With



content analysis, researchers draw realistic conclusions, typically using large amounts of data to draw inferences about a topic (Erlingsson & Brysiewicz, 2017; Loktev & Zuev, 2017). Loktev and Zuev (2017) conducted a content analysis to understand the quality of life among a population residing in coastal settlements in Salekhard, Russia. According to Loktev and Zuev, a content analysis approach was appropriate for their study as their goal was to draw conclusions about socioeconomic and sociocultural phenomena. The current explores strategies manufacturing business leaders use to diversify lines of business to achieve sustainability; therefore, content analysis design was not appropriate.

Neither the phenomenological research nor the ethnographic research design was appropriate for this study. Researchers use the phenomenological design to explore and understand the meaning of the participants' lived experiences (Alase, 2017; Cypress, 2018; Flynn & Korcуска, 2018). This study involved exploring the strategies that business leaders use to enhance sustainability; therefore, it was not necessary to explore the lived experiences of study participants. The focus of this study was not on the meanings of participants' lived experiences; thus, phenomenological study was not an appropriate approach for answering this study's research question.

Ethnographic researchers focus on human cultures. Ethnography is heavily dependent on visual observations, and researchers rely on direct observations to identify human experiences (Yin, 2018). When conducting interviews, researchers become active participants in the interview sessions (Carroll & Mesman, 2018; Karagiozis, 2018; Saunders et al., 2016). This study does not concern the culture of business leaders; therefore, an ethnographic design was not an appropriate study design. Within the

parameters of the research question for this study, closely observing the participating organization's daily practices was not possible, nor was it approved by the IRB. The ethnographic design was not appropriate for the proposed study as the need to conduct protracted observations did not exist. Given the parameters set forth by the study's research question, a single case study was the best design.

Researchers must decide on whether to use a single or multiple case study design. Researchers can effectively use a single case study design when the goal is to study only one single thing, entity, or phenomenon (Yin, 2018). The one phenomenon I explored in this study was the type of strategy manufacturing business leaders used to diversify lines of business for achieving sustainability. I conducted a single case study to explore the why, what, and how of a common phenomenon in a single entity.

In contrast, in multiple case study research design, the researcher studies multiple cases to understand the similarities and differences between/among the cases (Yin, 2018). In the business world, leaders must broaden a company's horizons and seek new opportunities even though the company is already successful with its current products or services (Vidgen et al., 2017). Diversification is about building new products, exploring new markets, and taking new risks to measure an organization's stability.

To ensure data saturation in this study, I continued to add data by interviewing the three leaders of the manufacturing organization, member checking the data among the leaders, and triangulating the data across sources provided and throughout interviews with each participant. The goal of achieving data saturation is to validate the findings taken from the data (Lowe et al., 2018). Researchers can also accomplish data validation

through member checking, which includes providing a summary and interpretation of the data to the interviewee for review (Harvey, 2017). To achieve data saturation, I combined document review with semistructured interviews until the information became redundant.

## **Population and Sampling**

### **Defining the Population**

For this study, I chose the purposive sampling method to sample business leaders of a manufacturing organization that has been in business for over 50 years in the northeastern region of the United States. It was essential to identify participants who met the eligibility requirements and who had successful experience implementing strategies to diversify lines of business for achieving sustainability in the manufacturing business; therefore, the nonprobability technique of purposive sampling was justifiable for this study. The participants include the Chief Executive Officer (CEO), Chief Operations Officer (COO), and the Chief Financial Officer (CFO).

### **Sampling**

In the qualitative research method, nonprobability sampling techniques, such as purposive sampling, provide researchers with strong theoretical reasons for the inclusion of a case in their sample(s). Nonprobability sampling requires researchers to use subjective judgments and draw on the theory presented in academic literature and practice, thereby integrating the experiences of the researcher into the research process (Yin, 2018). For this study, I chose purposive sampling, which, according to Bullard (2019), are population samples deliberately chosen to reflect a specific characteristic such as age, location, or even species. Purposive sampling is meant to describe a premeditated

or purposive intent in picking individuals to include in the study sample (Bullard, 2019). Answering this study's research question involved purposeful sampling in identifying knowledgeable participants who had experience and success in employing sustainability strategies.

### **Data Saturation**

The data saturation point determines the sample size in qualitative research as it indicates when the researcher has collected adequate data for a detailed analysis. Data saturation is the point in research where there is no new information to discover (Fusch et al., 2018). To ensure data saturation in this study, I added data for the study by interviewing the three leaders of the manufacturing organization, member checking the data among the leaders, and triangulating the data across the internal resources provided, information found on the internet and throughout interviews with each participant. When this information became redundant, I knew I achieved data saturation. Researchers who seek data saturation select subjects based on the purpose of the study with the expectation that each participant will provide unique and rich information of value to the study (van Rijnsoever, 2017). When this happens, members of an accessible population each provide unique experiences. The point of data saturation determines sample size (Hennink et al., 2019; van Rijnsoever, 2017). Failing to reach data saturation in a study jeopardizes the overall quality of the research of the study and hampers content validity (Fusch et al., 2018). Therefore, reaching data saturation in this study contributed to the validity of the findings.

## **Interview Setting**

Identification of the appropriate interview medium was a critical step in explaining the study, gaining trust, and accessing data from the participants. I selected a person-centered research approach to gain trust and solicit authenticity and candidness from the participants. Using a person-centered approach allows the researcher to engage holistically with study participants (Sandvik & McCormack, 2018). The person-centered approach also renders participants somewhat vulnerable in their participation. My responsibility was to ensure safety and confidentiality in the interviews.

Telephone interviewing can be harder than face-to-face interviewing because it is harder to build rapport and trust when soliciting information via telephone. Digital technologies such as Skype and Zoom enable researchers to connect with participants and engage through a medium that allows trust-building factors present in most face-to-face communication; each party can read expression and emotion from the other (Lee-Potter, 2017). Honoring the stipulations in the Walden Consulting Capstone requirements and approved by the IRB, I used telephone interviews with an option for interviews via Zoom if the interviewee preferred. I conducted the telephone and Zoom data gathering with the organization leadership at mutually agreed upon times. The medium and the location of each meeting were based upon where the participant felt most comfortable and safe.

I informed participants in this study of their safety and confidentiality while giving them opportunities to ask questions related to their comfort levels in the study. Correcting misconceptions and supplying needed information to participants were my responsibilities. Brown and Danaher (2019) suggested that successful interviews allow

the participants to feel comfortable participating wholeheartedly in the study (Brown & Danaher, 2019). After verifying participants' agreement, I conducted interviews in their preferred settings, with the telephone as the preferred medium. Zoom was another option offered for increased comfort and safety of participants.

### **Ethical Research**

Informed consent is an essential part of all research processes that involve human participants. Thus, the qualitative researcher bears the responsibility to obtain informed consent from all study participants (Burr & Gibson, 2017). Participants of this study were asked to sign a consent form acknowledging their willingness to participate in the study. Ensuring the human rights of research participants is critical for protecting participants and achieving authenticity in a study (Yin, 2018).

My Walden University IRB approval number was 07-13-18-0723675. The Walden IRB approval guidelines include the articulation of ethical research guidelines (Walden University, 2020). According to Dooly et al. (2017), researchers must obtain participants' consent and follow ethical research practices. Stewart et al. (2017) also highlighted the importance of researchers' ensuring ethical practices and mitigating risk in seeking informed consent. I contacted the participants only after IRB gave its approval. I obtained informed consent from all participants before conducting interviews.

To identify potential risks and benefits to the participants, I followed an interview protocol (see Appendix A). A reliable interview protocol is critical in obtaining quality data from an interview (Yeong et al., 2018). During the interviews, participants were told that their responses would be recorded. Participants had the opportunity to request and

review their answers at any point in the study and were assured of the practical application of this research to broader society. Resnik (2018) pointed out participants should know the benefits of their participation in a research study. In this study, I followed the ethical principles discussed in *The Belmont Report*, respecting participants' autonomy, mitigating risk, and ensuring equal distribution of benefits and burdens. Participants did not receive any financial compensation for their participation.

To ensure the confidentiality of participants, I assigned each participant a number to maintain privacy and keep identities confidential. Saunders et al. (2015) asserted that concealing the identity of participants involves the prevention of traceability from those outside the research study. Saunders et al. (2016) agreed that researchers must adhere to the principles of ethical research, which include maintaining confidentiality and anonymity. Furthermore, the reliability of the data increases when participants receive assurance of confidentiality and anonymity (Saunders et al., 2016). The participant number did not include any personal or easily identifiable information. To ensure continued confidentiality, I did not disclose the participants' identities nor the identity of the organization in the study, which I identified as *Company X*. Furthermore, Stewart et al. (2017) suggested researchers secure and store electronic research data under password-protected files and hard copy data in a combination safe for 5 years. Thus, I kept data secure, backed up, and electronically password protected. I kept all written documentation in a locked folder, which I stored for 5 years after the study and then destroyed.

### **Data Collection Instruments**

For this study, as the primary data collection instrument, I used two primary sources of data, including in-depth semistructured interviews and company documents obtained from the organization's website, to collect data for this single case study. According to Yin (2018), case study data collection should come from two of six possible sources, including (a) documentation, (b) archival records, (c) interviews, (d) direct observations, (e) participant-observation, and (f) physical artifacts. Data sources for this single case study include semistructured interviews and company documents. Both data sources contributed to essential information gathering regarding how business leaders use sustainability strategies.

I collected data through semistructured interviews, which allowed for flexibility to ask probing questions throughout the interview process. In qualitative research, researchers use semistructured interviews to facilitate sustainable relationships with participants and evaluate the effectiveness of the participants' decision-making (Brown & Danaher, 2019). Lenka et al. (2018) used semistructured interviews to help manufacturing organizations identify the tactics necessary to succeed at servitization. Using predetermined questions in semistructured interviews also allows the researcher flexibility in seeking clarification during the interview (Brown & Danaher, 2019; Yin, 2018).

Each participant received the interview protocol (see Appendix A) and interview questions (see Appendix B) via email before the interview. Hershberger and Kavanaugh (2017) compared the appropriateness and equivalence of email messages and telephone



interviews in research and discovered that researchers receive more thorough responses from email messages than from telephone interviews. The participants received the interview questions via email and had the opportunity to type out their initial responses and return them to the researcher.

A telephone or Zoom interview followed the email questionnaire. Questionnaires contain only specific questions, whereas semistructured interviews allow for follow-up questions to gain depth and clarity on what the participant chooses to share (Yin, 2018). Zhang et al. (2017) suggested that participants respond more positively in telephone interviews. Beyhan Yasar et al. (2017) used telephone interviews to collect data from 384 manufacturing organizations located in varying geographic locations. The use of telephone interviewing allowed the researchers to collect data from an increased sample size, which improved their test validity and reliability (Beyhan Yasar et al., 2017). Lee-Potter (2017) also suggested telephone interviews as a flexible option for participants to participate in research because telephones accommodate special requirements and varying geographic locations. Archibald et al. (2019) identified Zoom as a viable tool for the collection of qualitative data that offers positive benefits to participants and researchers. Zoom is relatively inexpensive, is easy to use, and offers security options. The results of Archibald et al.'s (2019) study indicated participants favored Zoom over telephone interviews for Zoom's ability to build rapport, convenience, simplicity, and user-friendliness. The use of Zoom for the interview process provided easy access to participants and the development of a comfortable interview environment.

Researchers use multiple methods and sources in case-study research to gather data, including semistructured interviews and review of company documents (Yin, 2018). In addition to collecting data from semistructured interviews, I used organizational documents from the internet and those provided by the client leader as the second source of data. These documents included profit-and-loss statements, strategic plans, and business plans and were useful to explore the strategies used by business leaders of the manufacturing organization to diversify lines of business to achieve sustainability. I assessed the documents using the Baldrige Performance Excellence Program, the study research question, and the interview question topics. As recommended by Fusch et al. (2018), I used methodological triangulation to strengthen the data collected and to enhance the study's validity.

To evaluate the strengths and weaknesses of the client organization, I reviewed their profit-and-loss statements for the last 5 years and the organization's strategic priorities and business plans for the next 5 years. I also compared the data to what was gathered from the semistructured interviews. I assessed all the data, looking for patterns of similarity and the level to which the client leaders were aware of and acting in accordance with the organization's plans. Understanding how leaders make decisions and allocate resources is a critical aspect in discerning which strategies are prioritized (Abdalla et al., 2018). I kept all of the data collected for this study for 5 years and then destroyed it.

To enhance the reliability and validity of the data collection process, I requested that participants conduct member checking. The use of member checking allows

participants to check the accuracy of and expand, amend, or comment on data collected during the interview process (Brear, 2019). Caretta and Pérez (2019) suggested that member checking leads to transactional validity when participants provide feedback on the data. Furthermore, researchers regard member checking as a stronger version of validity reached through triangulation (Yin, 2018). I conducted member checking after each interview by providing participants with my interpretation of the data and providing them with an opportunity to verify the accuracy of the data.

### **Data Collection Technique**

Data sources for this research study included semistructured interview recordings and transcripts, and company documents, including financial statements, profit and loss statements, strategic priorities, other internal documents as well as documents found on the internet. The primary data collection technique I used was semistructured interviews using Zoom video conferencing and telephone mediums. In qualitative research, researchers use semistructured interviews to facilitate sustainable relationships with participants and evaluate the effectiveness of the participants' decision-making (Brown & Danaher, 2019). Conducting semistructured interviews help researchers the opportunity to maximize dialogue and build rapport when interviewing participants (Brown & Danaher, 2019). Semistructured interviews were an appropriate primary data collection technique for this single case study.

There are advantages and disadvantages to conducting semistructured interviews as a data collection instrument. The first disadvantage is the possibility that the information shared may be biased and lead to erroneous conclusions (Sonuga, 2017). A

second disadvantage is that not all information obtained is not guaranteed to be completely accurate as experience and memory are subjective, potentially causing inaccurate findings (Kaliber, 2019). However, I gathered accurate data by assuring the participants that whatever they shared with me would remain confidential. One advantage of conducting interviews is that what participants share can provide the most current and accurate information about a phenomenon firsthand (Yin, 2018). Another reason for using interviews as a data collection method is that the quality of the information obtained can be rich and present based on the participant's knowledge and experience (Kaliber, 2019). Although disadvantages do exist, the information made available and the richness of some of the data shared outweighed the potential disadvantages of using interviews as a data collection technique for this study.

There are also advantages and disadvantages to using each type of interview medium. Advantages researchers gain from using Zoom technology include the ability to build rapport and that it is convenient, simple, and user-friendly (Archibald et al., 2019). Zoom also allows researchers the ability to record interviews easily. Zoom participants, however, have expressed frustration with technical difficulties in connecting and limited functionality based on bandwidth or outdated hardware (Archibald et al., 2019). In this research study, precautions for avoiding frustration with the technology included providing participants with an introduction to the software and providing instructions before interviews took place. Instructions for testing the software and explanations for troubleshooting technical difficulties minimized participant frustration. If a participant

had trouble connecting to the video conferencing capability or was not comfortable using the face-to-face medium, we proceeded with the telephone conferencing option in Zoom.

Researchers experienced advantages and disadvantages when using the telephone for interviews. A telephone interview can help researchers gather information more quickly and can provide a personal touch that increases the level of comfort and connectivity for the participant (Farr et al., 2017). Using the telephone for interviews is also cost-effective as opposed to other methods used, such as face-to-face interviewing. According to Farr et al. (2017), a disadvantage of using telephone interviewing is that the researcher cannot observe nor respond to body language or changes in body language, which helps a researcher grasp how the participant interprets the research. Also, telephone interviewing does not allow the use of visual aids during the interview. To overcome these challenges in interviewing the participants, I listened and responded to audio clues, such as hesitation in responses and awkward silences. When detected, I offered to clarify the question or topic or reframe to aid in the participant's understanding.

Some researchers worry about the objectivity of data gathered from semistructured interviews (Sonuga, 2017). Data infected by bias can produce misleading and false research conclusions (Yin, 2018). Another disadvantage of semistructured interviews is that it is often difficult to validate interview data (Kaliber, 2019; McGrath et al., 2019; Sonuga, 2017). Interviews followed an interview protocol (Appendix A) to minimize the potential impact of bias on the data gathering process in this research study.

To ensure that interviews were useful for answering the study's research question, each participant responded to the same set of interview questions (Appendix B).

Preparation for interviews involved researching each of the participants' scope of duty, tenure, job responsibilities, and history with the organization. Participants had the opportunity to review interview questions before their participation in the interviews. Researchers use policy document analysis to aid in the understanding of the organization dynamics, nature, and sources of complex problems and to understand the motivations behind organizational decisions (Cardno, 2019). Information gleaned from the organization's publicly available documents also facilitated familiarization with the organization. I reviewed company data, including profit and loss statements, strategic priorities, and other internal documents as provided by the client. Reviewing these company documents allowed for an understanding of the scope of each participant's knowledge of the company's financial profile.

There are advantages and disadvantages to document collection and review in qualitative studies. One advantage is that working with documents is less expensive than other data collection strategies (Cardno, 2019). Collecting publicly available data is even less costly, as is the case in this study to some degree. Another advantage to the data collection technique of document retrieval is that it is easy and scheduling a time and place to receive the documents is not a concern, facilitating the ability to obtain plentiful data (Cardno, 2019). The disadvantage associated with the data collection of documents is that data may be missing or difficult to locate, which is germane to the study. The possibility also exists that recordkeeping methods may be inconsistent or changed,

limiting the amount and content gathered (Cardno, 2019). However, I took steps to mitigate the possibility of not retrieving enough data through document collection by gathering several different documents such as company financial statements, strategic priorities documentation, profit and loss statements, and any other internal documents the organization shares.

To establish validity, I conducted member checking with each participant. Member checking includes reviewing the information acquired in the interview with the participants and letting them make any needed corrections (Belotto, 2018). Therefore, member checking entailed reviewing the interview data with interview participants to ensure that the information was accurately recorded. Member checking increases the trustworthiness of the results (Thomas, 2017). Member checking also allows researchers the ability to develop a critical understanding of the data gathered and establish equitable researcher-participant relationships (Brear, 2019). The interview protocol for this study included member checking by allowing the participants to verify what they intended to share and to provide feedback. Member checking also plays a role in triangulation. Researchers use triangulation to explore the data gathered from several sources to satisfy the research question (Fusch et al., 2018). Methodological triangulation was the type of triangulation used in this study.

### **Data Organization Technique**

The organization technique for the data in this study involved recording the interviews with the participants, using a research journal to record handwritten notes, member checking to ensure that what is shared by the participants is intentional, and

transcribing interviews. Data organization is a precursor to data analysis, which is performed once all the data is collected (Saunders et al., 2016). In addition to the research journal, I used a Samsung Galaxy S8 voice recording software to record the audio as a backup device as well as Zoom videoconferencing technology to conduct and record interviews. Recording each interview allowed me to transcribe each interview accurately. Transcriptions took place approximately 24 hours after the interviews were completed with assistance from NVivo transcription software.

Belotto (2018) recommended organizing collected data chronologically. Saunders et al. (2016) emphasized that data should be organized such that it is easily accessible to the researcher. For this research study, the organization of interview data involved keeping digital recording on a standard digital recorder on my laptop of each interview as well as scanning and uploading the research journal notes during interviews. Audio and written materials for individual interviews were filed together for easy retrieval.

Ensuring the security of collected data is an important aspect of data organization. Dashti et al. (2017) highlighted the importance of securing data to prevent unauthorized access or duplication to documents. Additionally, Antonio et al. (2020) underscored the importance of auditing data to ensure the security of stored data. Yin (2018) suggested researchers conducting case study research compile all data into an electronic database for safety and security. A secure cabinet will house hardcopies of handwritten notes. A password-protected computer ensured the safety of electronic files associated with the study. I maintained all data for 5 years based on Walden University's (2019) requirements. After 5 years, I deleted all data collected and destroyed the research journal



I used during the study. The NCPHSBBR (1979) authors recommended researchers minimize risk to participants by storing data electronically under safe and secure conditions to reduce risk to participants.

### **Data Analysis**

Researchers use a variety of techniques to conduct data analysis. One such method is methodological triangulation, in which researchers use more than one method to gather data (Denzin, 2017). Methodological triangulation strengthens the validity of research-based conclusions by relying on multiple data sources. If the analysis of each data set leads the researcher to the same conclusion, the results more strongly reflect objective reality than the methodological approach (Fusch et al., 2018). Two primary data sources informed the results of the study, interview data and company financial documents as well as company data including profit and loss statements, strategic priorities, and other internal documents.

The goal for all data analysis is to build meaning and understanding of the data for the targeted audience (Cooksey & McDonald, 2019). Similarly, Paulus et al. (2017) suggested the importance of analyzing data from primary sources to enhance the quality of the data analysis. Linking the researcher's observations and reflections to the collected data can improve the credibility of the study. Coding data by using traditional tools for written notes and transcriptions combined with qualitative data analysis software (QDAS), such as NVivo, offer a valid and tested analysis method for grounded theory generation (Maher et al., 2018). Researchers use NVivo to illustrate relationships among coding categories and to theorize conceptual relationships (Paulus & Bennett, 2017). I

transcribed each interview manually and then reviewed each transcription for accuracy. The documents were uploaded into NVivo to perform data analysis by coding, categorizing, and developing themes.

Thematic analysis is an important procedure for accomplishing data analysis that offers researchers the opportunity to review different data set sizes and to identify patterns or themes in the data (Saunders et al., 2016). The data analysis method for this study follows Yin's (2018) 5-step process of compiling, disassembling, reassembling, interpreting, and concluding. Yin's process is effective when used with computer-assisted qualitative data analysis (CAQDAS) software to aid in the data analysis process and uncover underlying themes (Maher et al., 2018; Saunders et al., 2016). I identified themes from each interview, secondary data, as well as the key elements found in the literature. Key themes were then tied back to the conceptual framework. NVivo is a source for the management of data; the identification of textual markers; and supports sorting, analysis, and write-up (Maher et al., 2018). Using NVivo also streamlines the process of analysis of open-ended comments (Robins & Eisen, 2017). The use of NVivo in analysis and coding the data to find relevant themes further ensured accuracy in the findings.

### **Reliability and Validity**

Researchers may use either qualitative or quantitative methods to ensure the rigor of their study. Qualitative and quantitative researchers both use reliability and validity to assess the quality of research and to decrease researcher and participant bias in research studies (Jenkins et al., 2018). Qualitative researchers address dependability to ensure reliability, as well as the validity of the research through establishing credibility,

transferability, confirmability, and data saturation (Forero et al., 2018). I took steps to ensure the reliability and validity of the results of this study.

### **Reliability**

Reliability is a concept that refers to achieving consistent results from researcher to researcher. Qualitative researchers ensured reliability through dependability, which is dependent on the ability of the study results to be replicated (Moser & Korstjens, 2017). Qualitative researchers provide a detailed record of the logistics and methodology used to complete research to maintain consistency in both process and results, thereby ensuring the reliability of the study. Ensuring reliability means employing consistent measurement procedures for the proposed interpretations and evaluating the evidence related to the inferences made in the research (Peterson, 2019). To ensure dependability and reliability, researchers established an audit trail through triangulation and by using computer-assisted qualitative data analysis to document the decision-making process throughout the research study (Paulus & Bennett, 2017). I used NVivo qualitative data analysis software to conduct data analysis, code the data collected, and develop and document the audit trail of decisions made during the data collection and data analysis activities throughout the study.

In addition, I established reliability through dependability by using member checking and methodological triangulation to ensure consistency of the data analysis and thematic interpretation of the participant's lived experiences within the social context. Member checking involved reviewing the transcribed data and synthesizing my interpretation of each interview question into a succinct paragraph, which I then provided

to the participants who reviewed the interpretation for accuracy (see Marshall & Rossman, 2016). Member checking allows participants to check the accuracy of the context presented by the researcher's interpretation of the data and expand, amend, or comment on data collected during the interview process (Brear, 2019). I provided each participant with the opportunity to check the interpretation of the data collected from the interviews and allowed them to provide additional context or alternative interpretations of the analysis of the data.

### **Validity**

Validity and reliability increase transparency and decrease opportunities to insert researcher bias in qualitative research (Dodgson, 2019). Validity in qualitative research means using the appropriate tools, processes, and data to conduct research (Jenkins et al., 2018). Jenkins et al. (2018) further asserted that to validate the appropriateness of tools, processes, and data, and researchers ask: (a) if the research question is valid and achieves the desired outcome, (b) does the methodology answer the research question, (c) is the research design valid for the methodology, and (d) are the results and conclusions have valid samples and correct context. A review of the question, methodology, design, results, and conclusions helped ensure a study that was both valid and reliable.

Qualitative researchers establish the credibility of research by establishing trustworthiness in the results, which refers to how believable the results are of the study (Peterson, 2019). Peterson (2019) further asserted that what and how a researcher explains the findings and the examples that are given contribute to the credibility of the findings. I established credibility in this study by member checking after the data analysis

and provided each participant with the opportunity to check the interpretation, provide additional context, or alternative interpretations of the data collected, in order to correctly reflect their lived experiences.

In addition to establishing credibility through member checking, I used methodological triangulation to strengthen the data collected and to enhance the study's validity. Researchers use methodological triangulation to improve validity by combining various techniques in one study (Flick, 2018a). Methodological triangulation requires that researchers use more than one option to gather data (Denzin, 2017). The value of using triangulation is that it finds agreement and validation of results through different research methods. Other benefits of methodological triangulation include confirmation of findings, data that is more comprehensive, increased validity, and enhanced understanding of the study findings (Flick, 2018b). Researchers assert that employing multiple methods of analysis regarding the same set of events increases the validity of the process, which is enhanced by triangulation (Fusch et al., 2018; Marshall & Rossman, 2016). I completed methodological triangulation in this study by comparing two primary sources of data, including participant's semistructured interviews and company documents, such as company websites and financial documents.

Transferability, referred to as external validity, is the ability to infer that the study findings are applicable to similar situations (Ferrando et al., 2019). My goal was to be able to transfer the results of the study from one situation to another. To establish transferability, researchers must provide the reader with evidence that the study's findings are applicable across contexts, situations, times, and populations (Betz & Wulf,

2018). Researchers cannot simply offer a guarantee regarding the transferability of study findings and, therefore, must provide evidence that the results are transferable. Lincoln et al. (1985) first explored the concept of transferability and asserted that it is the researcher's responsibility to provide the database that makes transferable judgments possible on behalf of the reader. I ensured validity in this study by establishing creditability, transferability, and confirmability of the study findings.

Confirmability is the ability of researchers to extend the confidence that the results of the study would be confirmed by other researchers performing a similar analysis (Forero et al., 2018). Researchers ensured confirmability by recording detailed notes during the researcher's decision-making and analysis actions (Fusch et al., 2018). I provided confirmability in the findings of this study by detailed journaling of bi-weekly meetings and recording detailed notes during the decision-making process and using NVivo to capture data analysis.

Qualitative researchers ensure data saturation by collecting enough data to show the depth of the data collected and analyzed towards answering the research question (Fusch et al., 2018). Researchers attain data saturation when no new information can be garnered from participant responses, and there is enough data for future researchers to replicate the study (Benozzo & Gherardi, 2019). To ensure data saturation in this study, I added data by interviewing the three leaders of the manufacturing organization, member checking the data among the leaders, and triangulating the data across sources provided and throughout interviews with each participant. Additionally, I collected and analyzed

data until no new information was produced from the participants' experiences and no new themes were identified in the answers to the research question.

### **Transition and Summary**

Section 2 included descriptions of how I conducted the study and my rationale for choosing a single case study design. For this qualitative single case study, I was the primary data collection instrument. According to the NCPHSBBR (1979), researchers should adhere to ethical principles to ensure study participants' have autonomy, are subject to minimal risk, and are protected from harm. While conducting this study, I adhered to the recommended ethical principles, avoided bias through the use of member checking, obtained consent, and conducted semistructured interviews following an interview protocol. The target population for this study included manufacturing business leaders from a manufacturing organization in the northeastern region of the United States, with successful experience implementing strategies to diversify lines of business for sustainability. I gained access to participants via purposive sampling through the organization leader, who was a voluntary participant in the Walden Consulting Capstone. I contacted the participants through telephone and email communication regarding participation in the study.

To collect data appropriately, I followed ethical guidelines, used specific data collection instruments, and followed specific data collection, organization, and analysis processes. I gained IRB consent before conducting interviews and used the interview protocol to discuss the benefits and risks of this study with potential participants. Serving as the primary data collection instrument, I used two primary sources of data, including

semistructured interviews and company documents. Data analysis occurred using NVivo transcription software to identify key themes, which aided in capturing the context of key decisions throughout the execution of data analysis. I established reliability by using member checking and validity through establishing credibility, transferability, and confirmability of the study findings.

In Section 3, I present the study findings, as well as supporting data analysis through a comparison of key themes from the data collection to academic literature describing the conceptual framework. Also, I include recommendations for social change opportunities and implications for this study. I discuss reflections of the study and finalize a conclusion for this study in Section 3.



### Section 3: Organizational Profile

The purpose of this qualitative single case study was to explore strategies manufacturing business leaders use to diversify lines of business for achieving sustainability. Company X (pseudonym) is an industrial manufacturing company located in the northeastern region of the United States. The company has been in business since 1966, and its main objective is to provide microwave heating equipment for industrial use. Company X continuously supplies microwave power generators, components, and systems throughout varying industries and has built a respected reputation in this niche market. According to a review of the company's financial records in 2017 and 2018, Company X remained profitable until recently. Revenue decreased from \$5.2 million in 2015 to \$791,000 in 2019. As profits have declined, the workforce has also been reduced. Management laid off four full-time tenured staff, and five employees converted to part-time positions. Management cares about their ability to remain a gainful employer in the region. The goal is to restore and rehire all terminated and underemployed employees by the end of this study.

Company X's goal is to deliver quality, reliability, and performance. The team has expertise in machine design, microwave technology, heat transfer, and automation. The Company X factory covers approximately 30,000 square feet and houses an applications laboratory where employees help customers develop new uses for microwaves. The technology is robust and innovative, and further developments in technology represent areas in which the company can diversify product offerings and increase profit. Product diversification is critical to strategic management and financial

performance. The alignment of internal and external resources helps organizations capitalize on diversification strategies. Company X's diversified revenue streams due to offering parts and services have partially offset low sales of the company's heating and drying systems.

**Table 1**

*Revenue Breakout by Category: Company X*

	2018		2019		Change	
Oven Production	\$550,440	53%	\$200,000	25%	(\$350,440)	156%
Service Income	\$99,031	10%	\$84,313	10%	(\$14,718)	7%
Spare Parts Income	\$374,946	36%	\$507,633	63%	\$132,687	-59%
Other Income	\$8,147	1%	\$15,623	2%	\$7,476	-3%
Total	\$1,032,564	100%	\$807,569	100%	(\$224,995)	100%

The Baldrige Performance Excellence Program provided a framework to gain an understanding of how organizations operate and analyze the challenges they face. The framework includes criteria used to identify information, data, analysis of performance, results, workforce operations, knowledge management, and organization measurements of Company X. I include my evaluation of Company X using Baldrige's key factors worksheet, leadership triad, and results triad criteria.

I developed a profile of the organization based on an explanation of its leadership, processes, performance, and effectiveness. The organization profile provided a context for the study and identified vital information about the organization, strategic environment, and its challenges. Using the RBV theory as the conceptual framework, I

identified key themes and recommendations for improvements through data collection and analysis, validated results through methodological triangulation, and presented them for Company X's leaders to use in developing future strategic plans. The key themes that emerged from thematic analysis are the need for the implementation of servitization strategies to diversify lines of business, convert internal resources to sustain the business and build competitive advantage, and stakeholder agreement to move forward with any of these strategies.

### **Key Factors Worksheet**

#### **Organizational Description**

Company X was established in 1966 in the United States and is currently located in a 30,000 square foot headquarters and manufacturing facility in the northeastern region. The company manufactures and assembles industrial heating and drying components and systems, including microwave, hot air, and infrared technologies. Company X's products are manufactured and assembled in the United States, with products including continuous vulcanization systems, process heating and drying systems, and microwave generators. These products are used in the manufacturing of door, window, trunk seals, weather stripping, rubber gaskets and seals, road and bridge seals, shock mounts, personal hygiene products, brain chemistry research, tissue ablation, medical waste abatement, water and air filters, bread, breadcrumbs, bacon cooking, drying of organics, and tempering. Key markets for Company X's products include automotive, construction, ceramics, chemical, environmental, food, laboratory, medical research, pharmaceutical, science, semiconductor, and government industries. From 2015

to 2019, three customers accounted for 55.9% of the company's revenue for the period. Company X's diversified revenue streams from offering parts and services have partially offset low sales of its heating and drying systems. In addition, the COVID-19 pandemic has affected the business activity of Company X. Sales have further decreased, and customers are delaying delivery of pending orders due to uncertainty and cash flow.

### ***Organizational Environment***

The organizational environment assessment of Company X includes a summary of main product offerings, mission, values, workforce profile, assets, and regulatory requirements.

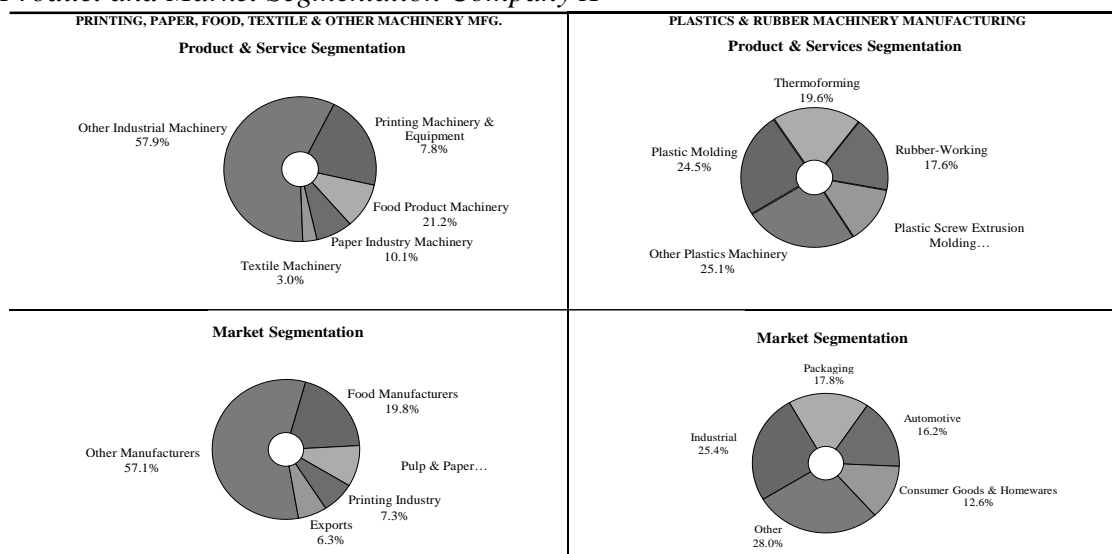
**Product Offerings.** Company X provides a complete line of curing ovens, heating and drying systems, and microwave generators. For industries including automotive rubber, construction, and infrastructure, Company X manufactures infrared and shock hot air preheaters, microwave vulcanization ovens, and high-temperature high-velocity hot air curing ovens across a range of power levels and lengths. The line includes both standard and custom-built systems, both continuous and batch. For other applications requiring precision heating and drying, Company X produces a wide range of hybrid heating systems using microwave, infrared, and hot air in both atmosphere and vacuum environments. All systems include precision power control, process monitoring, and remote diagnostics and support capability.

Company X microwave systems are driven by company-built microwave generators ranging from single-digit kilowatts to megawatts of power, in both 2450 MHz and 915 MHz frequency bands. All products produced by Company X are made in the

United States. They include rubber, semiconductors, ceramics, foundry molds, pharmaceuticals, and other products that require the use of process heat. The company is also a supplier of needed parts for microwave heating equipment, including transmitters.

**Figure 1**

*Product and Market Segmentation Company X*



**Mission, Vision, and Values.** The mission of Company X is to deliver quality and reliable performance for all equipment. As of 2019, the company has not specified a vision or specific value statements; however, it identifies its core competencies as providing quality products and innovative technology, its employee and customer focus, and comprehensive product catalog.

**Workforce Profile.** The workforce profile includes employee classification, total number of employees, and minimum education and experience requirements relative to each position. Staff include a part-time manufacturing manager who supervises manufacturing floor/system builds and manages part sales, a COO who is involved in all

sales and operations, a part-time controller, an in-house accountant, and a service engineer who oversees customer support and remote service. A mechanical designer/engineer, rubber expert, chief scientist, and engineer are contractors and used on an as-needed basis. The COO is full-time and responsible for sales, engineering, and business development. Lastly, the president and CEO are responsible for all business operations. Teams of engineers, scientists, manufacturing staff, service and support teams, and operations and sales professionals focus on total customer satisfaction through innovative customer-oriented designs, prompt delivery, service, and education. The team has expertise in machine design, microwave technology, heat transfer, and automation. The decline in staff is a result of decreases in profit over the last year. Additionally, COVID-19 slowed down production due to restrictions for staff. Part-time staff were impacted and quarantined, and not able to meet production timelines.

**Assets.** The Company X factory covers approximately 30,000 square feet and houses an applications laboratory where employees help customers develop new uses for microwaves. The technology is robust. However, capital equipment on the manufacturing floor is outdated but still used. The value of current parts equipment is \$1,257,004 per the 2019 annual report. Other assets include machinery, furniture and fixture, and automobiles. Total assets as of September 30, 2019 are \$1.6 million, liabilities are \$1.5 million, and there is \$71.9 million in equity.

**Table 2***Adjusted Balance Sheet For Company X*

	12/31/2018	9/30/2019
Total assets	\$1,696,738	\$1,576,990
Total liabilities	\$1,634,093	\$1,505,109
Total liabilities and equity	\$1,696,738	\$1,576,990
Working capital	\$66,756	\$66,756

**Regulatory Requirements.** Company X maintains Occupational Safety Hazard Association (OSHA) compliance and observes OSHA standards for microwave leakage for the company and its customers. Depending on customer requirements, the company also builds a UL (Underwriters and Laboratories), 508A (control panels), and various IEC standards for electrical safety. Company X ensures compliance with regulatory guidelines to deliver quality and safety standards they promise their customers and ensure ethical operation of their business.

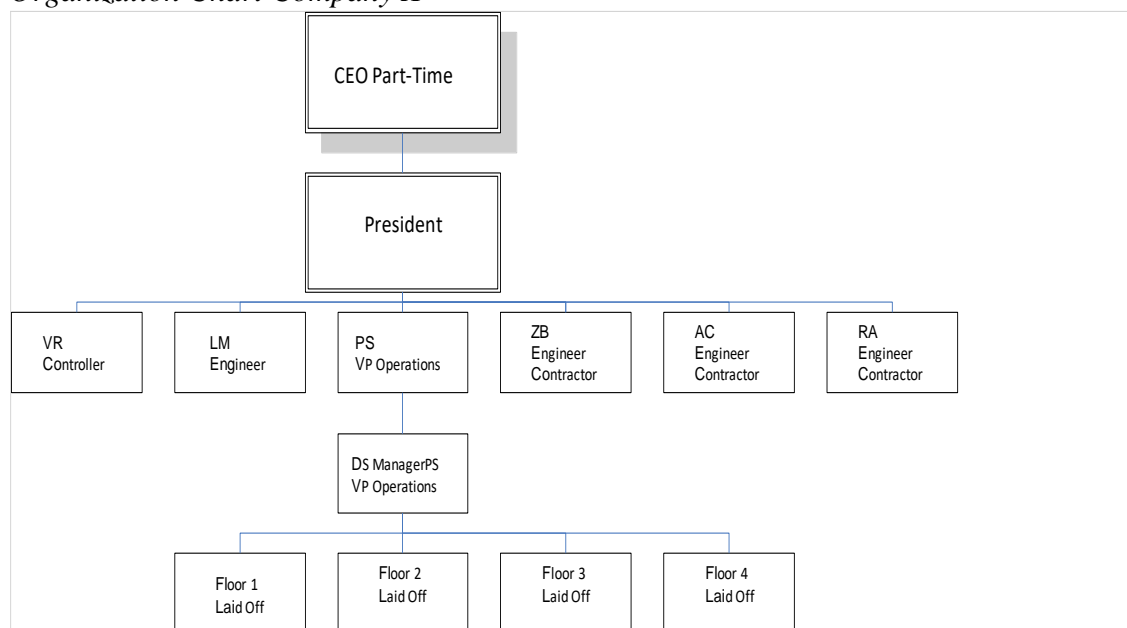
***Organizational Relationships***

Organizational relationships associated with Company X involve the organizational and governance structure, customers, key stakeholders, suppliers, partners, and collaborators. Company X's leadership is responsible for establishing systems and processes that ensure the integration of organizational relationships with the company's mission and values. All Company X stakeholders, including employees, are made aware of their responsibilities and how their duties are integrated for the success of the organization overall.

**Organizational Structure.** The organizational structure for Company X is as follows. The company is 100% owned by a father and son who operate as CEO and COO/President, respectively. The CEO and COO are considered senior leaders of the organization, and the organization does not have a governing board.

**Figure 2**

*Organization Chart Company X*



**Customers and Stakeholders.** In acquiring and servicing new customers, the company focuses on securing buy-in from the production plant and operations leaders who set industry requirements and make the internal case for the use of Company X products. Most customers are in the automotive component industry, of which three main customers make up the majority of business for Company X. Company X used to have a board of directors; however, it was disbanded over 20 years ago. The board was not involved in day-to-day operations and not overly effective.



The COO is now the primary decision-maker, as the CEO is primarily incapacitated. The COO uses the parts manager, external advisors, outside counsel, and an external accountant to strategize. The COO is also a member of the Service Core of Retired Executives (SCORE) mentorship program and frequently uses the SCORE network for advice and ad hoc financial analysis. SCORE is an established mentorship program focused on fostering vibrant small business communities through mentoring and education. SCORE is a national nonprofit organization that offers counsel to business owners and entrepreneurs at no cost. The organization includes over 389 chapters and has the largest network of expert business mentors who have helped more than 11 million entrepreneurs to date.

**Table 3**

*Stockholders Interests: Company X*

Shareholders	Number of Shares	Percentage Interest
Class B Shares		
CEO	\$1520	80%
COO	\$380	20%
Total Shareholder	\$1,900	100%
Interests		

**Suppliers and Partners.** Most partners are in the automotive component field and include General Motors, Ford Motors, and Toyota. The company has received the Ford Motor Company Q1 Quality Award for process innovation. Company X is a partner in an international joint venture with an electronics company in Germany and has a technology-sharing relationship with the materials laboratory of Penn State University.

Relationships with the German organization as well as Penn State were established over 20 years ago by the CEO. The relationship developed from Penn State's materials research lab, which would receive inquiries regarding materials processing and send leads to Company X. This relationship still exists and is still used for referrals.

The German partnership was established over 20 years ago as well. During this partnership, Company X serviced machines and provided components for systems sold through German partnerships with the United States. Company X's goal was to focus on educational institutions. The German company granted them the right to sell their equipment in the UNITED STATES. For this partnership, Company X set up a separate business web site in order to attract educational institutions. The partnership was not as successful from a financial viewpoint for Company X, who bought out half of the relationship 5 years ago. Buying out the partnership enabled Company X to continue to use the name. Customers still purchase equipment that is sourced from the German partner, but the formal relationship no longer exists.

### **Organizational Situation**

Company X has focused on its core business strategy for its main product line for the first 50 years of its existence. Company X leaders now realize and understand the necessity of organizational strategies transitioning to include other areas of business, which is necessary for the company to grow and achieve sustainability. The following section includes a review of Company X's organizational situation, competitive environment, strategic context, and performance improvement system used to maintain a competitive advantage.

### ***Competitive Environment***

Organizational leaders must have a clear understanding of their competitive environment if they intend to establish and maintain a competitive advantage and organizational sustainability. Company X leaders can use this understanding of their competitive environment to develop effective strategies. Strategy in an organization is critical to improving sustainability and competitiveness.

**Competitive Position.** Most of Company X's competitors are based in Europe and China and offer wider varieties of products and are more competitive in the niche market. For example, a machine Company X sells for \$500,000 is sold by China for \$125,000. Anecdotally, with such a niche market, cumulative data is not being identified, gathered, or tracked industry wide. Competitors are also secretive in terms of sharing data that would give away company secrets or threaten their competitive advantage.

For this study, I have only included the competitors who are similar in size and scope to Company X. Company X can offer a full set of services including, training and education, on-site system service and support of its own and competitor systems, remote system service and support via Company X Internet Diagnostics Online (iDOL), system startups, system calibrations, preventative maintenance, refurbishments, and upgrades, controls programming and new system design. Most of these product offerings, however, are central to Company X's main business line. Further development of service offerings to a broader customer base will aid in successfully implementing a servitization strategy.

An analysis of the competitor offerings identified in Table 4 highlights the focus of each organization. Similarly, they all share a focus on customer service and service

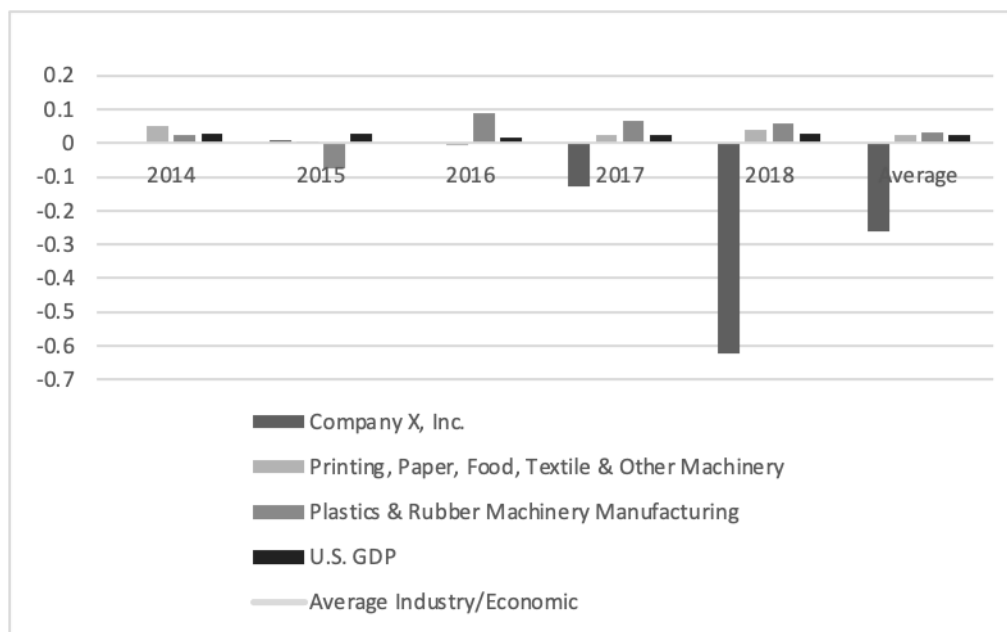
offerings to their customers and stakeholders. In contrast to Company X, these competitors have developed strategies to increase their competitive advantage that focus on providing value to their customers, build brand loyalty and increase customer satisfaction. Company X is behind the curve in creating customer-focused strategies that could help them ensure sustainability for their organization for years to come.

**Table 4**

<i>Competitors</i>	
Competitor 1	<ul style="list-style-type: none"> <li>• Offers service, spare parts, and a hotline with a 24-hr. technical sales team.</li> <li>• Offers specific varieties and custom modified magnetrons</li> </ul>
Competitor 2	<ul style="list-style-type: none"> <li>• Boasts a customer service focus of the latest technology and focuses on a target market of the E.U. and USA.</li> <li>• The main niche is helping customers extend the life of their current equipment through upgrades and maintenance. This is extremely valuable in an economic slowdown and valuable to organizations trying to maximize expenses.</li> </ul>
Competitor 3	<ul style="list-style-type: none"> <li>• Reaches out to customers who are looking for cost-efficient upgrades.</li> <li>• Has expanded to other equipment manufacturing outside of the rubber industry such as Non-rubber related ovens, burner systems, automated conveyor lines, and more and supplies their customer's engineering services.</li> <li>• Their staff is experienced in providing systems and guidance and upgrades to machinery from Europe being transplanted to North America and offers spare parts and parts and service additions.</li> </ul>
Competitor 4	<ul style="list-style-type: none"> <li>• Offers extensive maintenance and support services as well as programming and design services.</li> <li>• Their team is capable of servicing and upgrading any industrial microwave, regardless of who built it.</li> <li>• Spare Parts, System Upgrades, Microwave engineering, and design services. Consultative services and an “Ask an expert” customer support online.</li> </ul>
Competitor 5	<ul style="list-style-type: none"> <li>• Offers regular maintenance or servicing of production line agreements. This service includes regular servicing and inspection by trained service engineers.</li> <li>• Additionally, they procure spare parts with a quick turnaround.</li> </ul>
Competitor 6	<ul style="list-style-type: none"> <li>• Offers a long list of services and products that include Ceramic Formulation R&amp;D, NQA-1 Implementation, PVD Coating Development, ASME Code Vessel Design, Vacuum Vessel Design, Thin Film Process Optimization, Plasma, and Thermal Spray Process Development, Environmental Remediation Process Development, Engineering Design (Pro/E, etc.), Materials Technology Deployment, Prototype Development, Vision Systems for Manufacturing, Process Automation Design and Integration of Processing Equipment.</li> </ul>

**Competitiveness Changes.** The company's biggest competitive change is the introduction of products from China that are produced faster and at substantially lower

prices. China is competing for more market share in the United States, and manufacturing industry customers have begun to utilize these products at an increasing rate. Also, a significant supplier of the company's most profitable product doubled the wholesale cost. This change in the price the organization pays for its products has increased their debt ratio and decreased their profitability for the products they offer. Company X has a unique opportunity to corner this niche market in the United States by expanding the capability of its spare parts and service offerings. One of the challenges is in adapting the development processes to handling service development. However, the adoption of new approaches, method, and thought processes are the only way to build a successful servitization strategy (Cenamor et al., 2017). Additionally, an analysis of the industry and markets in which a company operates provides insights into industry stakeholders' past, present, and future financial performance (Jayasekera, 2018). The following is an overview of the machinery manufacturing industries with which Company X competes and as represented by Figure 3.

**Figure 3***Company X Industry and Economic Trending*

According to Company X's valuation report, annual revenue for the printing, paper, food, textile, and other machinery manufacturing industry was estimated at \$27.3 billion, an increase of 3.7% from \$26.4 billion in 2017. Industry revenue was generated from 2,779 companies and 84,226 employees. The average revenue per company was estimated at \$9.8 million in 2018, and the average number of employees per company was 30. From 2014 to 2018, annual revenue growth in the printing, paper, food, textile, and other machinery manufacturing industry increased by 2.2%. From 2019 to 2023, industry revenue is forecast to increase by 1.1%. The increase in revenue in this industry indicates an opportunity for Company X to create and sustain a viable business. The implementation of innovative technologies will aid in creating a competitive advantage,

which in turn will allow the organization to take advantage of external opportunities to increase profit.

In 2018, the plastics and rubber machinery manufacturing industry's annual revenue was estimated at \$4.1 billion, an increase of 5.9% from \$3.8 billion in 2017. Industry revenue was generated from 455 companies and 13,574 employees. The average revenue per company was estimated at \$8.9 million in 2018, and the average number of employees per company was 30. From 2014-2018, annual revenue growth in the plastics and rubber machinery manufacturing industry increased by 3.1%. From 2019-2023, industry revenue is forecast to increase by 0.9%. Figure 4 shows Company X's 50-year history in cyclical business regarding industry share, which has averaged 2.6% of the annual market share.

**Comparative Data.** Company X leaders do not make use of comparative data regarding the company's operation and performance. The lack of comparative data is due to the unavailability of specific data from competitors, which is difficult to obtain because of the market niche position. Company X leaders understand how the lack of comparative data is not helpful in determining the changes and innovations the company now needs to ensure sustainability.

### ***Strategic Context***

A company's value is enhanced or diminished by its internal strengths and weaknesses and external opportunities and threats (SWOT). Additionally, the strategic planning category of the Baldrige Performance Excellence Program emphasized the importance of organizations determining their key strengths, weaknesses, opportunities,



and threats. Creating SWOT aids in identifying and executing strategy toward building competitive advantage. Similarly, RBV theory suggests that companies should look internally first to take advantage of resources in building a competitive advantage. According to RBV, it is easier to utilize internal resources in a new way than it is to create new ones. The following SWOT analysis summarizes some of the identified attributes and detriments for Company X as a stand-alone business. Financial references are based on historical and adjusted financial statements.

Table 5 is an analysis of the strategic challenges and opportunities of Company X. Key strategic challenges include a decrease in cash flow, decreased profitability due to an increase in part costs, and a decrease in service calls due to the longevity and lifespan of the machines. Company X's advantages, however, include competitor disinterest in pursuing and expanding into the UNITED STATES market, partnership opportunities in the development of new lines of business and service offerings, and the increase in customer confidence with the services offered.

**Table 5***Company X's Strategic Challenges and Opportunities*

<b>Strengths</b>	<b>Weaknesses</b>
<ul style="list-style-type: none"> <li>• UNITED STATES market share/penetration for rubber vulcanization ovens strong relative to the competition</li> <li>• Company X brand recognition</li> <li>• P&amp;G relationship results in ongoing and profitable jobs</li> <li>• Chief scientist is a terrific, multi-disciplined engineer</li> <li>• Recent Moses job has Company X at the top of customer mind meaning significant possible future opportunity</li> <li>• Recent (last 2 years) increase in business in non-rubber markets shows we can think and act more broadly</li> </ul>	<ul style="list-style-type: none"> <li>• Cash flow/cash management</li> <li>• Low job profitability (with exceptions)</li> <li>• Financial planning constantly targets in flux</li> <li>• Job cost estimating skills still not solid</li> <li>• Lack of field service in the past two years has impacted customer confidence, and some of those customers may be seeking service elsewhere (service now improving)</li> <li>• Lack of field service in the past two years has reduced spares by about 15% (assumption)</li> <li>• Lack of standard manufacturing processes result in cost overruns, and mistakes repeated</li> <li>• Have not institutionalized engineering knowledge</li> <li>• Insufficient engineering documentation</li> <li>• Chief scientist is a remote contractor and past retirement age</li> </ul>
<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>• Europe-based competitors don't actively pursue UNITED STATES market</li> <li>• The high value of microwave to personal hygiene market (P&amp;G only) could allow expansion beyond P&amp;G</li> <li>• Possibly opportunity with Far East-based Moses competitor</li> <li>• The opportunity exists for more creative marketing (currently sub-optimized)</li> <li>• Partnership opportunities with complementary equipment providers may exist</li> </ul>	<ul style="list-style-type: none"> <li>• Rubber vulcanization (particularly automotive) market is static or shrinking</li> <li>• Industry technologies and processes are very slow to evolve (if at all)</li> <li>• UNITED STATES customers are more open to Chinese equipment</li> <li>• Difficulty competing in European and Far East markets</li> <li>• While we've done well in the past two years getting into non-rubber markets, it's not yet enough to constitute a predictable, ongoing business</li> </ul>

### ***Performance Improvement System***

The leaders of Company X do not have formal performance management or improvement system. Company X leaders meet daily with all employees. The purpose of these meetings is to make sure everyone understands the priorities for the daily operations and production goals. The leaders also use this opportunity to connect with the employees, check on current jobs' progress, and plan for the next steps. Management addresses issues with staff by eliminating staff with counterintuitive behaviors.

The authors of the Baldrige Performance Excellence Program (2019) underscored the importance of integrating a performance management system into an organization's strategy to foster a culture of continuous improvement. Also, a culture that includes continuous and structured performance management promotes an environment of continuous learning and helps organizations remain competitive, forward-thinking, and innovative. The implementation of a performance management process at Company X could turn weaknesses identified in the SWOT analysis into opportunities and competitive advantages. The implementation of methodology such as Six Sigma provides a framework for changing culture in organizations. The application of Lean Six Sigma processes in performance management helps managers and employees both focus on growth and continuous improvement through optimizing processes (Lean Six Sigma Institute, 2019).

Currently, the company lacks comparative and competitive data by which to measure its successes and failures. Value stream mapping is a management method in Lean Six Sigma that provides a way for organizations to map out processes from

beginning to end with the intent of identifying critical and value-added steps (King & King, 2015). Mapping the daily tasks and goals can serve as a foundation for performance management. The analysis of these documents could help Company X identify areas of improvement as well as its opportunities for growth. A performance management philosophy reinforces processes, informs employees of what is expected of them, and states rewards and consequences. Implementing performance management also enables leaders to thoroughly document and ensures fair and equitable treatment across the organization. Consistently capturing this information can also provide a basis for year-over-year analysis towards annualized growth and sustainability initiatives.

### **Leadership Triad: Leadership, Strategy, and Customers**

#### **Leadership**

##### ***Senior Leadership***

The company is owned wholly by a father and son, the CEO and COO and are considered the senior leaders of Company X. Company X also does not have an advisory board. The CEO's recent health struggles have incapacitated him and removed him from decision making and strategic planning for Company X. The COO has assumed responsibility for all day-to-day operations as well as future planning and strategic direction. The senior leaders communicate with the workforce primarily in person through daily strategy meetings and face to face problem identification and brainstorming. As stated above, the COO relies on his external relationships with mentors and sources to think through growth and sustainability options for the organization.

***Governance and Societal Responsibilities***

Company X ensures compliance with legal and regulatory requirements and societal responsibilities by adhering to industrial standards and general equipment specifications. These standards include machine safety and health as required by the Occupational Safety and Health Administration Standards Section 1910 (USA) and European EEC Standard 89/392, Microwave Safety: IEC Standard 335-25, and IMPI Standard IS-1 [235]. Electrical Safety: NFPA 79 Electrical Standard for Industrial Machinery, NFPA 70 National Electrical Code, and British Standard EN60204-1 Electrical Equipment of Machines (CE Standard). Industrial Oven Safety: NFPA 86 Ovens and Furnaces and IEC 519 Safety in Electroheat Installations (CE Standard).

Additionally, in compliance with high voltage safety requirements, Company X has eliminated all circuit board potentiometers, eliminating the need for service persons to adjust inside the high voltage environment. In compliance with pneumatic door safety, Company X doors feature a unique safety bar device, which instantly opens the oven doors when contacted with the slightest pressure. The safety bars run the full length of each door and preclude the possibility of anything being in the path of the closing door. When this event occurs, the doors are locked out from being closed again for 15 seconds. In addition to this device, the pneumatic control valves are of three-position, open center construction. This means that the doors are not pneumatically locked in either position in the event of any electrical failure but free to move.

Regarding all testing and inspection, all ovens are tested and burned in at maximum operating temperature. Customers are encouraged to visit Company X to

witness final testing or join us in the final inspection. With packing, Company X disassembles the ovens into as few assemblies as possible to permit shipping and coats all non-painted, non-stainless-steel surfaces with rust preventative before shipping. All disassembled components are match-marked to facilitate reassembly. Lastly, one copy of all technical manuals is supplied in a three-ring binder format. These manuals contain specifications, operator instructions, suggested maintenance, PLC program printout, parts list, instrument parameters, layout drawing, and electrical schematics. One copy of a component literature file containing all vendor-supplied component manuals is also provided. The general equipment specifications are indicated in Table 6.

Legal responsibilities include ensuring the company adheres to these standards and ensuring that any suppliers and partners also adhere to required safety and certification standards. The COO and the manager of parts and sales systematically check legal compliance with each supplier by asking to review required certifications and that those certifications are up to date by visiting supplier factories to ensure compliance. Financial records of the organization are updated by the controller and reviewed by the COO regularly.

Company X also employs an outsourcing finance firm to ensure checks and balances with the financial records. The finances are discussed between the COO and the CEO, and updates are provided regularly. The organization does not possess a formal strategic plan and does not undergo a formal strategic planning process. The COO and the CEO decide the next steps for the business and determine growth and opportunity areas. The COO stated that other management in the organization is not directly involved

in financial management and is not largely provided details of the company's financial status; however, they are aware of the financial trends.

**Table 6**

*General Equipment Specifications*

Mechanical: 1. Bearings – MB Manufacturing 2. Gearboxes – Dodge 3. Gas burner – Eclipse
Electrical: 1. Control/PLC – Allen Bradley (CompactLogix) 2. Switches, Push buttons, Panel lights – Allen Bradley 3. Contactors – Allen Bradley 4. Disconnects – Square D 5. Fusing – Gould Shawmut 6. Motors (A.C.) – Baldor 7. High Limit Temperature Device – Eurotherm 8. Frequency Drives – ABB 9. Operator Interface – Maple Systems 10. Terminal Strips – Wago 11. Power Requirements – 480/3/60, approximately 150 Amps 12. Microwave Power Level – 30kW total 13. Microwave Oven-36kW electric for Air Heat 14. HVHA Ovens-Gas (LPG or N.G.) for Air Heat
Paint: 1. Oven/Doors – Company X blue (Federal Standard 595 Color #25109) 2. Control & Generator Cabinet – Company X blue (Federal Standard 595 Color #25109) 3. Chain Covers – Safety Yellow – Sherman Williams Color 4084

**Strategy**

*Strategy Development*

Company X leadership describes its strategic planning process as informal. Because the organization is small and family-owned, the CEO primarily guides the strategic direction with input from the COO. At the beginning of the study, the COO struggled to convince the CEO to understand his viewpoints for the future of the organization. The two fundamentally disagreed on the organization's strategic direction. The CEO's viewpoint is that the current strategy worked for over 50 years and stated during an interview that current issues were more of a result of lack of innovation in the organization. The CEO, in part, agreed that the organization is not moving forward; however, he attributes the decline to the changes in the external environment and the

organization's lack of ability or readiness to adapt to changes efficiently and effectively. The disagreement between the two has stagnated the organization's ability to move forward. Recently, the CEO was incapacitated, which has given the COO perspective but also the authority to make holistic decisions for the organization.

The CEO and COO have not been able to agree on key strategic objectives; however, during this time, the COO has focused on creating a sustainability strategy for the organization and implementing some of his previous ideas. The change in leadership has taken a toll on the COO and the organization; however, the COO believes that the last 5 years have trained him for this moment of transition of power and acknowledges the opportunity provided to move the company forward and decreased resistance. Zahra (2018) studied how relationships in family-owned businesses affected innovation and growth and asserted that risk-taking is critical in family-owned businesses to ensure growth and discover other ways to remain profitable and sustain a business. The results of the initial study and the subsequent review reveal the same conclusions as relevant in today's family-owned businesses and support the fact that risk-taking is essential for a family organization's survival.

### ***Strategy Implementation***

The COO has embarked upon a series of strategic changes and is focused on the following action plans: (a) to secure the financial wellbeing, growth, and sustainability of Company X and (b) utilize outsourcing to attain appropriate subject matter expertise. The organization has not identified metrics for assessing the success of these action plans; however, they have identified how these changes will positively impact the business



overall. The changes include securing a leaseback of the current 30,000 square foot building, reevaluating the staffing structure, considering outsourcing of key roles, closing the key business line of machine parts, and shifting solely to a service and parts business model. Physically moving the organization out of the current facility will free up funds that can sustain business operations over the next 5 years. Outsourcing critical functions and services in the organization can also positively impact the organization financially.

Because the organization is smaller, the need for a full-time subject matter expert is costly. Company X can see the same value by outsourcing time from experts in the past. These solutions help to decrease the financial burden of employing a full-time position. Lastly, the main service line has not been consistently profitable or dependable in the last 5 years. Keeping this line of business is also costly for the organization to sustain. Conversely, the parts and service lines have increased in profitability over the last 5 years and have produced enough income to keep the organization profitable. Additionally, switching to a parts and service model would decrease overhead and financial liability for Company X.

Though RBV focuses on an organization's internal resources, outsourcing is considered a strategy used by organizations to conserve internal resources. Outsourcing is increasing in popularity amongst professionals as well as scholars as it provides the ability to implement a cost-effective resource that can also increase the competitiveness of the organization (Altin, 2019). Outsourcing also can allow the internal organization to focus on what is needed to move the company forward. Outsourcing provides a short-to-immediate term solution, and outsourcing teams are accustomed to quickly assessing and

implementing change while maintaining day-to-day service delivery and accomplishing tasks. Outsourcing the components of the organization that provides the best value will also provide invaluable thought partnership to the leadership team at Company X.

## **Customers**

### ***Customer Expectations***

Company X systems are worldwide. The company has received the Ford Motor Company Q1 Quality Award for process innovation. The company has succeeded with little emphasis on marketing and has not developed a comprehensive marketing program or initiative in the past. When the company seeks to acquire and service new customers, the focus is on securing buy-in from the production/plant and operations leaders who set up industry requirements and make the internal case for the use of Company X products. To date, Company X has not focused on gathering or analyzing customer feedback. Customers are cyclical due to the niche function of the organization. Due to the longevity of the products provided, customers do not need to contact the organization often.

The lack of interaction with the customers has handicapped Company X in its ability to create value-added products and services. The inability to capture what is most important to their customers has made the organization vulnerable to competitors who are avidly increasing their market share by focusing on customer requirements in innovation and service. Company X has relied upon longstanding relationships with customers without focusing on upgrading their service and product offerings over time. The absence of constant innovation has equated to the current position of decreased growth and a lack of stability for the organization and its employees. Due to COVID-19, all interactions

with customers as of March 2020 are 100% virtual. Company X resumed on-site service/repairs in October 2020. However, the company keeps up to date on COVID-19 restrictions and changes to the business.

Listening to customers and understanding their needs and wants is critical for the success of any organization. There are multiple ways to identify the needs of customers and gather feedback. Conducting focus groups, using surveys, polling customers on social media platforms, and researching keywords are all ways to capture the customer voice about an organization's products and services. Customer information should be captured at each step of the process to ensure accurate and consistent information.

Table 7 represents Company X's top customers, who represent most of their business orders and profits. This information is helpful in designing a customer engagement strategy and helpful in creating a customer feedback strategy. Three customers consist of most of the business for Company X. Focusing on these three customers, soliciting feedback from those organizations, and piloting new ideas and products could yield the most efficient use of time and give Company X the most useful feedback overall.

**Table 7**

<i>Company X Customers</i>							
	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Total \$</u>	<u>Total % of Orders</u>
CORN01	\$3,525,583	\$11,304	\$504	\$50,129	\$9,948	\$3,597,467	25.5%
TAMB02	\$738,978	\$1,004,039	\$526,345	\$19,756	\$94,574	\$2,383,691	16.9%
HENN	\$11,285	\$670,273	\$1,124,869	\$47,380	\$48,080	\$1,901,887	13.5%
Total	\$4,275,846	\$1,685,616	\$1,651,718	\$117,265	\$152,602	\$7,883,045	55.9%

***Customer Engagement***

The COO and parts manager keep a constant dialogue with the customers, with the COO focusing on the infrequent, large scale, and large size customers, and the parts manager in communication with the most frequent and day-to-day customers. The COO has not determined when and what the communication with customers will be when the business model changes or what level of communication will be needed. Currently, the expectation for the parts manager is to engage with customers, secure additional sales and develop relationships with current and prospective clients to increase business. This occurs via cold-calling, cold searches, or word-of-mouth referrals. Company X does not currently use any social media platforms to engage current or prospective clients, nor does it have a process to measure customer satisfaction or engagement.

To ensure customer satisfaction with existing customers, Company X also offers on-site support, calibrations, repairs and diagnostics, and troubleshooting services. Remotely, Company X uses its Internet Diagnostics Online (iDOL) functionality to

securely connect to customer's systems over the Internet to diagnose and remediate operational issues. iDOL is installed as a standard part of all oven products. Additionally, the company offers regular preventative maintenance service programs on equipment it makes and training on all processes and procedures in using the equipment. The training programs include operations and maintenance of Company X equipment, preventative maintenance procedures, microwave theory and concepts, application and drying processes, and safety.

To increase the success of new business models as well as secure the future of current profitable areas of the business, Company X must implement methods to engage customers to determine their needs and interests. One way of accomplishing this is to develop regular feedback channels and timelines for soliciting feedback from customers. Mediums such as social media platforms and customer feedback surveys are underutilized and could provide timely feedback on the company's products and services. Company X can further secure loyalty and build trust with customers by implementing customer feedback and responding and building a dialogue with customers who provide feedback.

### **Results Triad: Workforce, Operations, and Results**

The following section provides a detailed description of Company X's workforce-focused processes, operational processes, and the performance results that the leadership team obtains from these processes. The RBV lens aids organization in identifying and developing unused and underutilized resources as drivers of growth. Company X leaders

can use RBV to innovate their service offerings by reimagining internal resources to satisfy customer expectations and improve the customer experience and customer loyalty.

### **Workforce**

The biggest asset in any organization is the people who work for that organization. Employees are not only critical to day-to-day operations but can also be a source of competitive advantage. In highly competitive markets, employing the best workers keeps productivity high, increases profits, and aids in ensuring sustainability now and in the future. The RBV outlined a direct link between employee-based resources and competitive advantage and stated that employing a high commitment to employees in an organization helps to create rare and valuable employee-based resources (Collins, 2020). The leaders of Company X consider their employees a most valuable resource. The employees have long tenure and innate trust in the company and its leadership team.

The subsection on the workforce at Company X describes how the workforce is shaped and structured and outlines the influences of the market and other circumstances over the years. In this section, I also explain how the leaders of Company X have adapted and overcome recent challenges and how those challenges have forced them to make tough decisions that have overwhelmingly changed the way the business thinks about the workforce. Throughout all the challenges, the leadership team is committed to their staff, and staff is a critical component in strategy development as the company continues to assess the process and measure the results of their current business models.

***Workforce Environment***

Company X's workforce has significantly been impacted by the variation of the industry in the last few years. Previously, the workforce consisted of approximately 110 employees at the company's 25-year peak. Many of the employees were with the organization throughout its entire cycle of stability. Those same employees weathered the storms of instability, uncertainty, and constant change in their employment because they were loyal to not only the company but also the owners. The CEO was proud of this dynamic and considered it an accomplishment in providing for families in his community.

Company X leadership tried to continue the tenured staff's employment if it could, kept staff employed throughout months of unprofitability, and engaged in community work programs that allowed most of the staff to work for the company part-time and receive a portion of their salary through a city grant. Eventually, management decided to permanently terminate most of the staff to acclimate to the permanent changes they faced. Of the tenured staff, two long-term employees (controller and manager of parts and sales remained). Each was decreased to part-time hours and continued to work for Company X as they looked for other full-time or subsidized work. Previously, the manager of parts and sales secured another position and left the organization for approximately 1 year but returned in 2018 when the organization had an upswing and secured several contracts. The successful completion of these contracts depended on the specific knowledge possessed by the parts and sales manager.

Another barrier the organization faced is that the market is a niche, and so are the positions and the skillsets that can fill the positions. The average number of applicants is less than five for any position posted due to the uniqueness of required qualifications. Usually, the background of the applicants includes multiple years of experience in logistics and engineering. This background and experience allow the employees to be trained quickly to work for Company X. In addition, Company X implemented standard safety and health practices regarding COVID-19. Continued measures include social distancing, hand sanitizer availability, masks, cleaning, etc. Internal meetings observe social distancing procedures, and the organization is more cautious and keeps up to date on frequent safety changes.

An outline of the qualifications and requirements can be found in Table 8 below. When the management team decides they need to hire, the job description is placed in the community newspaper and various online job boards such as LinkedIn and Indeed. The applicants from either job board did not yield many qualified applicants. Most of the hires in the last 5 years have been hired from the newspaper source of advertising or word of mouth.



**Table 8***Job Descriptions*

<b>V.P. technology</b>	<b>Electrical engineer</b>	<b>Procurement specialist (Parts)</b>
<p><b>Overview:</b> Provide day to day general and technology leadership</p> <p><b>Managerial:</b></p> <ul style="list-style-type: none"> <li>• In conjunction with the CEO, determine the strategic direction for the company</li> <li>• Oversee day to day business functions</li> <li>• Manage employees and contractors and seek new talent</li> <li>• Ensure manufacturing process operates effectively</li> <li>• Manage overall financials</li> </ul> <p><b>Sales:</b></p> <ul style="list-style-type: none"> <li>• Provide sales leadership and develop new and existing customer relationships</li> <li>• Develop sales plan and negotiate orders</li> <li>• Be the face of the company at industry events</li> </ul> <p><b>Technology:</b></p> <ul style="list-style-type: none"> <li>• Oversee overall engineering function</li> <li>• Define technology direction</li> <li>• Based on customer requirements, direct design and build of systems where company heating technology can address customer process requirements</li> </ul>	<p>Proven electrical engineering leadership experience in the design and engineering of large industrial equipment, especially industrial control systems</p> <ul style="list-style-type: none"> <li>• 7.5+ years of experience in design and programming of control systems for industrial equipment, specifically in writing ladder logic for programmable logic controllers (and strong experience in touch screen HMI programming)</li> <li>• Proven hands-on experience in large system circuit design</li> <li>• Proven hands-on experience in safety system design and programming</li> <li>• Ability to troubleshoot electrical and control systems</li> <li>• Ability to create electrical schematics using AutoCAD</li> <li>• Ability to travel globally (&lt; 10%)</li> <li>• Ideally: high voltage (7-10 kV) experience</li> <li>• Ability to provide hands-on mechanical systems support when necessary</li> </ul> <p><b>Preferred experience and qualifications:</b></p> <ul style="list-style-type: none"> <li>• 7.5+ years of hands-on experience in electrical design and troubleshooting of industrial applications</li> <li>• Experience in managing multiple projects within a project portfolio</li> <li>• Mechanical experience in manufacturing or equipment service</li> </ul>	<p>Provide quotes to customers in response to spare parts inquiries</p> <ul style="list-style-type: none"> <li>• Aggressively reach out to current customers and sell spare parts</li> <li>• Research customer inquiries in order to find the appropriate parts to quote</li> <li>• Source supplies with appropriate vendors</li> <li>• Fulfill orders</li> <li>• Provide customer service</li> </ul> <p><b>Logistics responsibilities include:</b></p> <ul style="list-style-type: none"> <li>• Receive and document incoming shipments</li> <li>• Prepare parts and equipment for shipping</li> <li>• Perform all parts shipping functions</li> </ul> <p><b>Requirements and qualifications:</b></p> <ul style="list-style-type: none"> <li>• Sufficient technical awareness and capability to understand the terminology around electrical and mechanical spare parts</li> <li>• Ability to research appropriate vendors and build vendor relationships</li> <li>• Ability to compose quotes for customers</li> </ul>

### ***Workforce Engagement***

Company X has always believed in and treated the workforce not as employees but as family. The CEO and COO have taken great pride in the ability of the organization to provide stability and growth for so many members of the community over the years. At the height of its success, employees were committed to the organization, had long tenures, low turnover, progressive growth, and positive feedback from employees regarding the work environment, leadership team, and hope for continued growth.

When Company X was forced to reduce its staff, the CEO considered this a major failure of the organization, and the decision is one that he still remarks as the biggest failure of the company. However, understanding the ways in which the market has significantly changed, the COO still regards the staff that remains as a major asset to the organization. The current staff is not only loyal but knowledgeable and possesses tacit knowledge that would be difficult to replace. To this point, the staff is involved in day-to-day conversations with the COO regarding the business, growth, profitability, strategy, and challenges. The culture is one that fosters frequent communication between the staff and senior leadership, and the COO frequently engages the manager of parts and service in problem-solving conversation. The parts manager is also sought after to weigh in on the strategic direction of the organization.

Though there have been constant struggles over the last 5 years, each of the employees remained dedicated and engaged with Company X. Current communications, however, are informal. Company X could benefit from more structured feedback and

communication schedule. The COO currently meets with each employee daily to go over daily deliverables responsibilities and to troubleshoot any foreseen and unforeseen challenges. Placing structure to these meetings would help the staff visualize the importance of these conversations but also see how the conversations are influencing the work and direction of the organization. Creating a formal agenda and beginning to document the outcomes of these meetings could also help the COO create implicit knowledge, fill in gaps and create documentation of important processes and procedures in the organization.

Company X's workforce is autonomous, with each department head leading and executing the daily work at their discretion. Usually, the COO is consulted if there is an issue that needs to be resolved. Because the employees are long-term employees and considered subject matter experts, there is little oversight into their day-to-day work. Each employee is encouraged to problem-solve and present solutions to problems to the COO when necessary. I would recommend forming a feedback panel that brings all the departments together to discuss the wins and challenges of each department, which would aid in enhancing the overall culture. This type of consistent meeting serves several purposes: it fosters collaborations across the organization, decreases vacuums and silos, increases receptiveness, increases efficiency, and promotes problem-solving across the organization, not just in the department.

Company X operates informally with both clients and employees, fostering an open-door policy to prove its commitment to being a local and approachable business. The leadership has developed longstanding relationships with its customers as well as

their employees and does not see the value or necessity of formality with its staff or customers. This practice, however, leaves the organization vulnerable to communication breakdowns and inefficiencies that could be avoided with the additional and protection of established and documented practices.

### **Operations**

The following component is an explanation of how Company X designs, manages, improves, and innovates its products and services. Also, in this component, I will provide insight as to how Company X leadership designs, manages, improves, and innovates the work processes and operational effectiveness to ensure ongoing organizational success. A review of the processes and operational effectiveness indicate Company X's commitment to ensuring effective organizational management.

### ***Work Processes***

Company X has not documented work processes in the organization. The leadership team defers to the managers of each department and considers them subject matter experts. The operations department is currently managed by the COO as well as the manager of parts and sales. The financial department is managed by the CFO. Across each department, when employees are hired, they are given task-oriented work in the beginning, which is closely monitored by each supervisor. New hires receive tactical work until they have proven their ability to work independently and execute tasks with few errors. Checks and balances ensure proper completion of the task as the failure to execute tasks with precision costs the company both time and money. As time progresses, new hires are given more responsibly as productivity increases.

Operations are defined in the machine operations department by the following process. Each day begins with a departmental team meeting, a review of everyone's schedules, and the review of specification drawings. The supervisor individually meets with each employee and explains the work requirements; the supervisor walks them through the process and checks the work. Machinists (metal cutting, bending machines, welding, etc.) require specialties and receive safety training and personal protection equipment. Manufacturing of any product only starts when specifications are verified by the customer. Specifications include the weight of the machine, height, operating parameters, insulation, heat, and safety considerations. The specifications document is developed by an engineer in collaboration with the customers.

Technical specifications govern the overall parameters of the job. Following the specification document, engineering drawings are created, including the inputs and outputs that are then shared with the customer as part of the engineering approval process. Once approved, manufacturing drawings are created and outsourced to partners in metal shops. These shops use drawings to create the metal. The engineers also create electrical drawings that include circuitry and controls. If the machine has never been built before, the chief engineer will create the new machine design, including calculations and followed by a concept drawing.

If there is a problem, it is usually discovered on the manufacturing floor and then checked against the engineering drawings or specifications. The parts manager is then responsible for contacting the supplier and troubleshoots the problem. It is extremely important to determine at which step the process failed to determine what is wrong, what

needs to be fixed, and if there are subsequent problems. Company X and the supplier/partner then problem solve to resolve the issue together.

### ***Operational Effectiveness***

This section includes a description of how the leadership team at Company X ensures the effectiveness of the organization's operations, in addition to the management of information systems, the efficiency and effectiveness of operational processes, preparations for emergencies, and the continuity of the business. Company X does not have a business continuity/interruption policy, nor does the organization have any processes, informal or formal, in place to address business continuity. The COO recognized this as a business weakness and opportunity. The cost of purchasing a comprehensive policy was cost-prohibitive, and the organization settled for a basic cyber policy toward protecting their intellectual property. The insurances and liability policies in place include a standard commercial policy (liability), crime policy, directors and officers insurance (personal liability) policy, workers compensation insurance, and an umbrella policy.

Company X has comprehensive protection regarding cybersecurity. The organization completes continuous real-time backups of electronic information, which is uploaded to a cloud server from the internal computers. In addition, the company simultaneously completes local backups of all computers. The company has outsourced backup services to back up company files and the financial system. The backups are kept indefinitely. In the event of a breach, Company X does not have a real-time security monitoring system in place, which places the company at risk in event of security breach.

Additionally, there is no form of the intrusion detection system in place. Some of the systems, such as email, have basic controls for spam and phishing, and Company X subscribes to a basic intrusion notification service that advises the organization if there is a breach. Malware is installed, and if an employee opens a corrosive document or link, the company is protected by completing continuous backups. The computer server is located on-premises for files and accounting software and is located in a locked room only accessible by the COO. All company email is cloud-based with Microsoft, and Company X uses office 365. All emails are recoverable, and the organization implements archiving.

The organization previously fell victim to a phishing scheme which cost the organization over \$120,000. To mitigate this risk, Company X has implemented second approval controls on all checks, electronic transfers, and financial transactions. Check writing authority is limited to the accountant and COO. Every transfer requires two approvers and online access mirrors this authority requirement. The COO has access to and reviews financial data at least two times a week. Company credit cards are provided only to employees who travel, and additional credit cards are available for purchasing, for which access controls are not in place. Employee information is stored in a locked file cabinet, and electronic information is stored and encrypted with passwords on a secure server.

Patents or copyrights are not currently in place. Proprietary drawings are difficult to secure from duplications; however, they are located on an encrypted server. There are no controls in place to prevent employees from copying and duplicating designs.

Company X relies on trust, confidentiality, and an understood code of ethics agreement with the employees. The company does not have non-compete or signed confidentiality agreements with employees. Employees are required to sign an information technology/acceptable use policy upon hire.

In accordance with safety requirements, all accidents are documented and reported. The company has not had a reportable worker's compensation claim in the last 10 years. Safety signs and posters are posted and accessible. Employees are required to wear safety glasses on the manufacturing floor, and all visitors are required to observe the right signage. The safety policy is in place and posted for all employees. Company X does not complete the annual OSHA 300 form.

Company X does not have manufacturing space available if the current space were to be unoccupiable. For example, during Hurricane Sandy, customer's orders were destroyed. Company X filed insurance claims and repaid the customer per the contracts in place. Employees are required to sign confidentiality agreements, comply with industrial safety standards and hardware build standards. Company X does not provide process guarantees which means that technical specifications and safety guarantees are given for the machines, but items produced by the machines are not guaranteed.

### **Measurement, Analysis, and Knowledge Management**

Company X has heavily relied upon the continuation of key stakeholder relationships, repeat customer business, and positive profit/loss statements as the determinants of success. However, the last 5 years have shown a significant need to develop and execute strategies aimed at the overarching business goals. To ensure



continuous growth, profitability, and sustainability in the future, Company X would benefit from developing and documenting formal strategies, business plans, and a strategic plan to plan where the business is going and what is needed to accomplish these goals. The COO has begun to think about these things but has not documented or begun to formalize a plan. Company X does not have a standard plan in place to forecast performance goals and has not created targets for a diversified business line to predict profitability.

Recently, Company X hired an external consultant company to complete a valuation study to determine the worth of the business in consideration of continuing or ceasing business. After the valuation was completed, the report finalized the current business value at approximately \$60,000. However, the report also pointed out the advantages of leaning into a diversified business model and focusing heavily on the parts and service business, which has increased in profitability over the last 5 years. Company X would benefit from creating a business plan for the parts and service business that includes a 5-year financial forecast and strategic plan. The Baldrige Excellence Framework (Baldrige Performance Excellence Program, 2019) emphasized how important strategic planning is to organizational excellence, specifically when creating profitability, competitive advantage, and sustainability. Similarly, the RBV reinforces the idea of an organization recognizing and controlling resources to achieve competitive advantage.

Additionally, one of the biggest issues for Company X is finding the right talent. Company X is located in the northeastern region of the United States. There are 44

colleges and universities in this region, enrolling more than 196 thousand students. Of those 44, 16 are trade or vocational schools that include manufacturing specialty programs. A recommendation for Company X is to form a relationship and/or feeder program from these trade/vocational schools to have a direct line relationship to talent and interns. Hosting interns accomplishes multiple goals for the organization. Talent is provided at a nominal fee or free, and the organization will give back to the community at large by training the future workforce. In return, the organization can fulfill its seasonal and temporary needs for skills to complete projects and build a bench of skilled workers for now and in the future.

During our work together for this study, the COO hired one intern who was instrumental with creating and implementing an innovative customer-facing process that will increase customer loyalty and satisfaction, diversifying Company X's service offerings, and will help them create a competitive advantage. The COO currently sits on several boards in the community. He serves as a mentor for other business owners and helps connect mentors with entrepreneurs and other community resources. Utilizing this resource can help him find the necessary talent for Company X. Creating a partnership with the surrounding schools as well as the community work programs can help identify useful and available skillsets.

### ***Information and Knowledge Management***

Company X does not keep formal records of processes, procedures, performance data, etc. However, the organization does have years of historical data and financial information stores throughout the organization. There is no one central location where all

this information is kept, which makes it impossible at times to pull data together for analysis and use it to make strategic decisions. Data analytics is increasingly popular and a critical step for organizations to understand how to create business value (Vidgen et al., 2017). For manufacturing to remain successful, leaders must become more data and information-driven to create value. Creating a clear data and analytic strategy that gives leaders a deep understanding of the driving factors of their business is key in creating strategies that are efficient and effective. Vidgen et al. (2017) further asserted that data conclusions draw from many different areas in an organization, i.e., personnel and business analysts. These resources aid an organization in tackling analytics in a systematic way.

Just as important is storing this information where it can be easily accessed and analyzed when needed. Knowledge management systems (KMS) allow leaders to keep years of data in order to forecast and analyze trends. The leadership team, as well as the long-tenured employees, possess a vast knowledge of tacit knowledge, which currently keeps the organization functioning. However, the lack of cross-training or effective succession planning is risky and could be detrimental to the organization in the case of an emergency. A KMS system would allow Company X to have policies, procedures, regulations, past failures, and successes documented to refer to when needed as well as help in forecasting and innovation.

The COO acknowledges the need for more formal strategies and documentation and realizes the importance of documentation to future business. RBV focuses on utilizing current resources to create advantages for the organization. The current systems

that are used individually by each department, if integrated, will allow Company X the ability to create a central location to house important information without incurring the cost of buying an expensive KMS program while the organization is in transition.

### **Collection, Analysis, and Preparation of Results**

#### **Thematic Findings**

The purpose of this qualitative single case study was to explore the strategies manufacturing business leaders use to diversify lines of business for achieving sustainability. The overarching research question of this study was: What strategies do manufacturing business leaders use to diversify lines of business for achieving sustainability? The participant responses from the interview process, as well as the information reviewed from other data sources, revealed several themes about successful strategies manufacturing business leaders used to diversify for sustainability. The findings revealed the following strategic themes: (a) servitization strategies to diversify the lines of business, (b) strategies to convert internal resources to sustain the business and build competitive advantage, and (c) stakeholder agreement strategies to move forward with any of these strategies. The participants acknowledged the need for forward-thinking strategies to ensure the viability of the organization for years to come. The participants also acknowledged how the lack of stakeholder agreement was holding them back from moving the organization forward and that this barrier was causing the organization the loss of valuable time needed to build and implement a longstanding strategy. Figure 4 is a visual representation of the keywords derived from the analysis of

the data and resources gathered regarding Company X and this study. The word cloud supports the thematic findings as identified below.

**Figure 4**

*Word Cloud of Analyzed Data Resources*

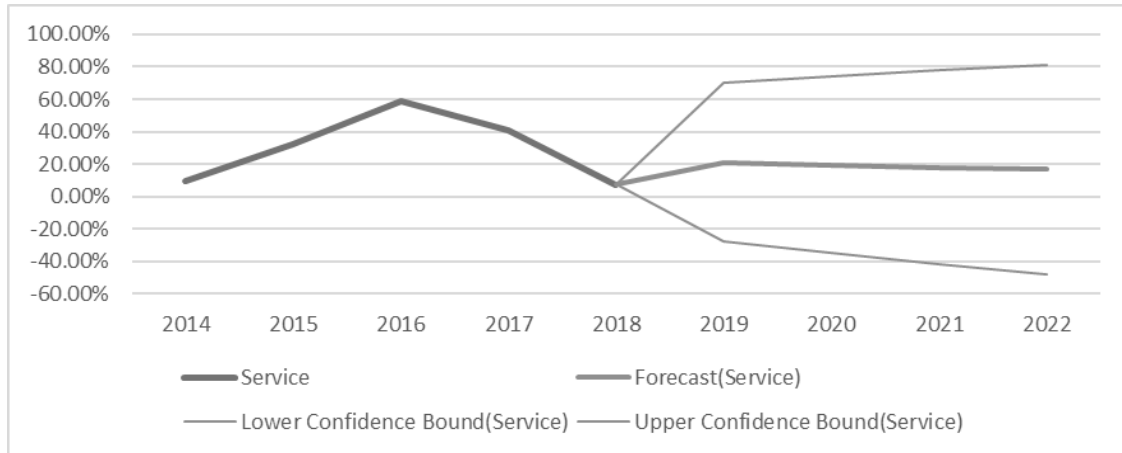


***Thematic Finding 1: Implementation of Servitization Strategies***

Servitization captures the evolving process of manufacturers moving away from stand-alone products to adding services that deliver more value to their customers. Currently, 50% of the manufacturer's profit comprise service-related offerings, and that number will increase to 80% by the year 2050 (Huikkola & Kohtamäki, 2018). The company has been in business since 1966 and has built a respected reputation in this niche market. Revenue decreased from \$3.5 million in gross profit in 2017 to \$500,000 in 2018, which has resulted in a decline in operations and workforce. Management has

begun to investigate profit diversification for sustainability and is expressly interested in the viability of a servitization strategy moving forward. The purpose of implementing servitization is to stabilize and grow profit margins and ensure sustainability for the next 50 years.

Admittedly, before our conversations began, Company X leaders did not understand the tenants of servitization but had begun to see a shift in the previous way they had always done business. For example, in previous years, the company had not focused on delivering service options to customers. Service was focused on providing service to the machines, which was the main income producer, but there was little interaction with the actual consumers and no method to gather and analyze information or feedback from the products or to measure the wants of the customer. Additionally, there was no strategy to build relationships through increasing customer touchpoints. One participant stated that the machines rarely needed servicing, so they would interact with the customer approximately every 2 years and would only talk with the person who made the purchase order. Figure 5 below is a graphical representation of the year-over-year analysis of service results and includes projections if diversification strategies are implemented.

**Figure 5***Year Over Year Analysis and Projection of Service Results*

In examining Company X's service business since 2014, gross profit declined overall with a slight spike upwards in 2016. Three-year projections are mixed and highly dependent, currently, on Company X's main business model (machines). Currently, there is not enough independence from the service model and the machine model for the Service program to sustain itself on its own. This does not mean, however, that the model is not sustainable. As the competitive analysis has shown, service, on its own, can be profitable; however, it requires an organized strategy and focuses on customer-centric offerings to be sustainable. The projected analysis also shows that with the right strategy implementation, Service can become a major profit builder for Company X and could make up approximately 80% of future gross profit. At this time, as it is heavily dependent on the core business model, failure to implement sustainable strategies during servitization means that profit will remain volatile and dependent if independent service

options are not established. Company X could benefit from implementing a standalone service strategy that includes an independent service and customer-centric strategy.

Company X's technology is strong and innovative, and further developments in technology represent areas in which the company can diversify offerings in service and parts.

Servitization is all about really understanding the customer and their business needs as well as understanding the ways that products and services can help the customer to become more successful, which in turn, makes the company more successful. To be successful and timely in response to customer needs, Company X will have to incorporate new business models to compress time to market, taking an idea through from design to a saleable item as quickly as possible. An example of new technology where this is a focus is automated predictive maintenance. The focus of the organization in servitization evolves from selling products to offering capabilities not offered by competitors. The fundamental change in servitization is how an organization approaches its customers and how customers are billed, which is helpful in maintaining the products being sold.

There are three levels of servitization: (1) offer parts or consumables not currently offered, (2) become involved in scheduling and performing maintenance and monitoring on the equipment sold, and (3) go to the customer and offer to help with products and solutions (Suri, 2020). According to Adrodgari and Saccani (2017), a successful servitization strategy calls for infrastructure to tap predictive analytics, remote communications, and need-based monitoring. If providing add-on services is the initial stage of servitization, providing solution offerings is the mature stage. The solution



offering is when products and services are integrated and create added value for the customer. Part of the task here is to support the customer in their value-creation processes, which means that the development of the solution offering must occur cooperatively between the company and the customer. Other paths to servitization include creating new pricing models, which Company X has already begun to explore. Introducing new products and services, such as connected products that generate data by the machines, can become a product. New monetization opportunities can be created from selling additional analyses of data beyond the contracted parameters or from generating new customers for the new offerings.

Table 9 summarizes the word frequencies related to the first theme derived from the data analysis. Servitization is the shift of manufacturing organizations from selling goods only to selling a combination of goods and services. Bustinza et al. (2017) indicated that differentiation and customer satisfaction with products and service offerings are what drives competitive advantage and sustainability. The results of their study also highlighted the importance of selecting the right partners in providing new services and how this selection can positively or negatively determine the success of a servitization strategy. Company X can benefit from servitization research and philosophies as leaders outline the diversification strategy. The realization that servitization has increased in popularity provides more research to guide leader's steps toward implementation. Additionally, servitization research summarizes the importance of partner selection and vendors in the new supply chain.

**Table 9***Developing Servitization Strategies*

Theme 1	Sources	References
Service	3	60
Options	3	10
Customer	3	35
Parts	3	25
Sales	3	10
Total References		140

The RBV theory is commonly used by manufacturing business leaders as they seek to identify sustainable business practices through diversification strategies such as servitization. Competitive advantage can be secured using productive resources (Penrose, 2009). Additionally, the Baldrige framework underscores the importance of organizations capitalizing on sources of competitive advantage while growing and addressing strategic challenges simultaneously. RBV theory provides an assessment of strategies that align with the goals and actions of Company X. The implementation of servitization can provide a path to sustainability and also create opportunities for the organization to grow while also tackling the challenges faced with transitioning a business model.

***Thematic Finding 2: Conversion of Internal Resources Strategies***

Key markets for Company X's products include automotive and construction, as well as ceramics, chemical, environmental, food, laboratory, medical research, pharmaceutical, science, semiconductor, and government applications. From 2015 to 2019, three customers accounted for 55.9% of the Company's revenue for the period. The diversified revenue streams from offering parts and services have partially offset lows in

sales of the company's heating and drying systems. For the last 5 years, company revenue has varied from \$5.2 million in 2015 to \$791.6 thousand in 2019, reflecting a 37.6% growth rate. The earnings before interest, taxes, depreciation, and amortization decreased from \$22.6 thousand in 2015 to \$467.5 thousand in 2019. Management indicated that revenue and profits had varied annually over the course of the Company's history, driven by peaks and valleys in the sale cycles. Table 10 below shows Company X's profit and loss statement over a 2-year period for the various service lines.

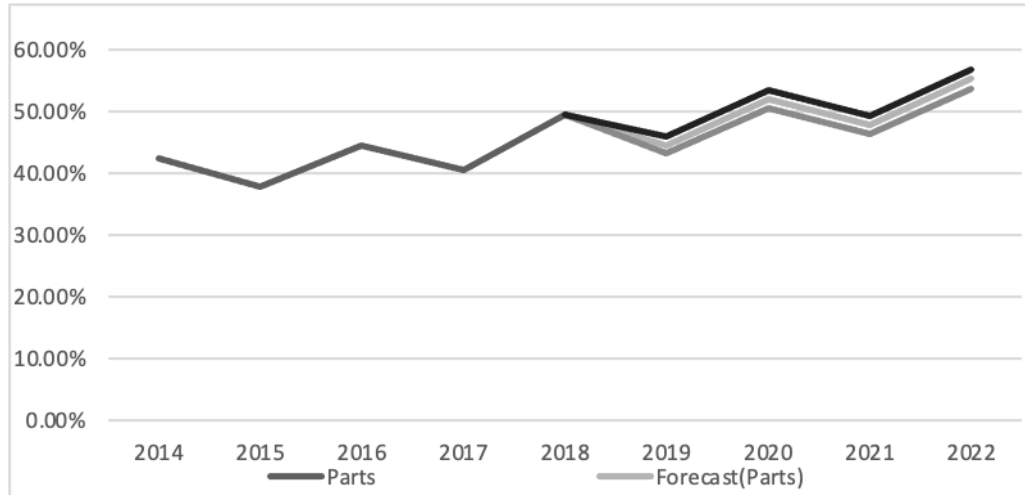
In 2018, Company X experienced a decrease in business in its core business model (microwaves and other operating systems). The expanded analysis from 2014-2018, however, shows a steady stream of income in the core business model. An increase in recent contracts and strategy has proved positive, and the company is once again solvent with an expectation of growth over the next 6 to 12 months. An analysis of the year-over-year trends regarding the Parts and Service models indicated by Figure 6 also tells a significant story and provides insight into this sector of the business.

**Table 10**

*Profit and Loss Statement of Service Lines Company X*

	2018		2019		Change
Oven	550,440	53%	200,000	25%	(350,440)
production					156%
Service income	99,031	10%	84,313	10%	(14,718)
					7%
Spare parts	374,946	36%	507,633	63%	132,687
income					-59%
Other income	8,147	1%	15,623	2%	7,476
					-3%
Total	1,032,564	100%	807,569	100%	(224,995)
					100%

*Note.* Table provided by Company X Valuation Report

**Figure 6***Year Over Year Analysis and Projection of Parts Results***Table 11***3 Year Analysis of Parts Sales*

2015		2016		2017		2018	
Oct-14	\$39,618	Oct-15	\$6,330	Oct-16	\$33,798	Oct-17	\$48,979
Nov-14	\$834	Nov-15	\$61,805	Nov-16	\$29,053	Nov-17	\$29,176
Dec-14	\$24,723	Dec-15	\$38,074	Dec-16	\$18,554	Dec-17	\$18,143
Jan-15	\$35,110	Jan-16	\$18,755	Jan-17	\$79,910	Jan-18	\$11,335
Feb-15	\$26,030	Feb-16	\$37,364	Feb-17	\$18,489	Feb-18	\$14,929
Mar-15	\$32,523	Mar-16	\$49,079	Mar-17	\$38,362	Mar-18	\$14,385
Apr-15	\$33,200	Apr-16	\$44,091	Apr-17	\$29,803	Apr-18	\$44,193
May-15	\$49,745	May-16	\$17,885	May-17	\$13,427	May-18	\$31,468
Apr-15	\$22,655	Apr-16	\$44,091	Apr-17	\$29,803	Apr-18	\$44,193
May-15	\$61,607	May-16	\$17,885	May-17	\$13,427	May-18	\$31,468
Jun-15	\$8,503	Jun-16	\$45,289	Jun-17	\$36,160	Jun-18	\$22,121
Jul-15	\$61,607	Jul-16	\$46,371	Jul-17	\$55,511	Jul-18	\$28,143
Aug-15	\$8,503	Aug-16	\$46,235	Aug-17	\$35,831	Aug-18	\$95,959
Sep-15	\$61,960	Sep-16	\$26,980	Sep-17	\$45,192	Sep-18	\$25,000
Total							
Per	\$396,508		\$438,258		\$434,090		\$383,831
Year							
Average							
Per	\$33,042		\$36,522		\$36,174		\$32,621
Month							

Since 2014, the parts business has shown steady growth for Company X, as indicated by Table 11. The parts business makes up approximately 40% of Company X's overall profit margin. Most notably, in 2018, when the sale of machines decreased, the sales of parts were stable and showed some increase making up approximately 50% of Company X's profit for 2018. The results are right on target with industry standards and are promising news in the determination of Company X's establishing a second business model. The 3-year projections for the parts business show a steady increase to approximately 60% in organic growth if Company X continues to operate as normal. With the implementation and research presented in this analysis and the review of industry trends, focusing on this growth as a strategy and implementing steps to move forward with developing this recommended business model could represent a significant opportunity in the parts business model for Company X. Also, a focus on defining the process and hiring the people needed for proper execution can aid the growth of the parts business. The continued growth of the parts business during Company X's toughest financial year as well as the 3-year projected growth indicate a good chance the parts business can remain profitable and increase in profit margin with the right focus and the right strategy.

Table 12 summarizes the word frequencies related to the second theme derived from the data analysis. Narkhede (2017) examined the roles of organizational knowledge, orientation, function, and RBV play in implementing advanced marketing strategies. The results provided a framework for manufacturing leaders that allows them to assess

competitiveness in the industry, identify order winners, key decision areas, and key practices for competitive advantage, and assess the role of organizational knowledge on manufacturing strategies. Using an RBV lens, Company X can build a diversification strategy that builds and converts internal resources to competitive advantage.

**Table 12**

*Conversion of Internal Resources*

Themes 2	Sources	References
Parts	3	43
Machines	3	15
Sales	3	30
Inventory	3	20
Revenue	3	5
Total references		113

***Thematic Finding 3: Stakeholder Agreement Strategies***

The third theme that emerged after analyzing the data sources was the lack of agreement between Company X stakeholders in the future direction and strategy of the organization. Company X is a family-owned business headed by the CEO for the last 52 years. However, due to the CEO's health, business operations were turned over to the COO approximately 5 years ago to handle the day-to-day operations. The COO is the CEO's son. Though the COO handles the daily operations, he did not possess the authority to make decisions about the company without the approval of the CEO. Anticipating the decline in business as well as analyzing the year-over-year turnover and decrease in profit, the COO made several attempts to persuade the CEO to diversify. In interviewing the CEO, he did not understand the need to change the business model and

stated that the current business model sustained the business for the last 52 years and that the business would endure by holding steady.

The dynamic between the two senior leaders, as well as the leadership style of each, differs significantly. The COO admittedly did not feel like a key decision-maker in the organization due to the lack of authority at times; however, he felt the burden of the business outcomes as the day-to-day operations leader. Consequently, the CEO stated his understanding of the conflict the COO possesses but thinks that this can be resolved if the COO believed wholeheartedly in his ability to lead the organization and leaned into his core strengths of management and analysis. The COO thinks that the sustainability of the organization needs not only passion but strategic decisions to evolve the business model and move the organization forward. Ghee et al. (2015) examined factors that influence performance in organizations related to transitions in family-owned businesses. In comparison, Ahsan (2018) and Alter (2013) detailed frameworks businesses can implement to take advantage of transitional planning for all employees and improve organizational performance. If both senior leaders are not able to agree on a strategy to move the organization forward, the efforts made toward servitization could fail. Disagreement amongst stakeholders undermines the effectiveness of the strategy, according to Valtakoski (2017). The senior leaders of Company X play a critical role in setting the values, reinforcing the strategic direction, and creating the organizational focus on action according to the Baldrige Excellence Framework. For a strategy to be successful, an organization must possess a shared understanding of the overall objectives,

dedication to the process to attain those objectives, and a willingness to move forward with improvements, measured risks, and innovations.

Throughout my conversations with the CEO and COO of Company X, the COO struggles in convincing the CEO to fully transition the organization to the COO or to open up to new growth ideas for the business. The COO stated that the lack of persuasion is stifling the organization in growth and profitability. The organization would benefit from creating a transition timeline to ease the CEO's concerns regarding the transition. Furthermore, transition planning for the staff can decrease turnover and increase productivity. Management styles, relationships of family members, values and beliefs, and successor training had a significant effect on organizational performance, according to Ghee et al. (2015). Management transitions in family organizations must be managed just as carefully as transitions in any other organization to maintain trust and ensure business sustainability. Organizations with successfully implemented transition plans are more likely to succeed after abrupt interruptions with key leaders. The results indicate the need for developing strategic succession plans to ensure sustainability. Creating a successful plan includes implementing a development plan, taking advice from other successful businesses, accessing your bench strength confronting your weaknesses (Alter, 2013).

Table 13 summarizes the word frequencies related to the third theme derived from the data analysis. Zahra (2018) stated that risk-taking is critical in organizations to ensure growth and discover other ways to remain profitable and sustain the business. The results of Zahra's study also revealed the same conclusions are relevant in 21<sup>st</sup>-century family-



owned businesses and support the fact that risk-taking is essential for a family organization's survival. The concept of stakeholders is also an important part of RBV theory. The effective or ineffective utilization of an organization's resources affects the overall ability of the organization to meet its objectives. Stakeholders, in turn, can be affected as they are vested in the success of the organization but also bear the consequences of any negative actions. Company X can utilize this study and the research contained within in gaining understanding and commitment amongst the senior leaders of the organization, who are all family members, to support the critical need for the organization to change to survive.

**Table 13**

*Stakeholder Agreement*

Theme 3	Sources	References
Family	3	60
Profit	3	10
Succession	3	35
Barrier	3	20
Sustain	3	5
Total references		130

**Product and Process Results**

This section contains a description of Company X's products and processes results. Company X is a for-profit manufacturing organization that has been in operation for over 50 years, located in the northeastern region of the United States. The leaders of Company X are proud that the products manufactured are all made in the United States and that the organization has been a staple and contributor to the local economy for the last 50 years. The products manufactured by Company X are niche items that are only

available from a limited and select number of manufacturers in the United States which has created a competitive advantage for the organization over the last 50 years. Company X leaders explore strategies to diversify lines of business and achieve sustainability. The Baldrige Performance Framework (Baldrige Performance Excellence Program, 2019) includes questions senior organization leaders can use to determine their results for key product and process measures.

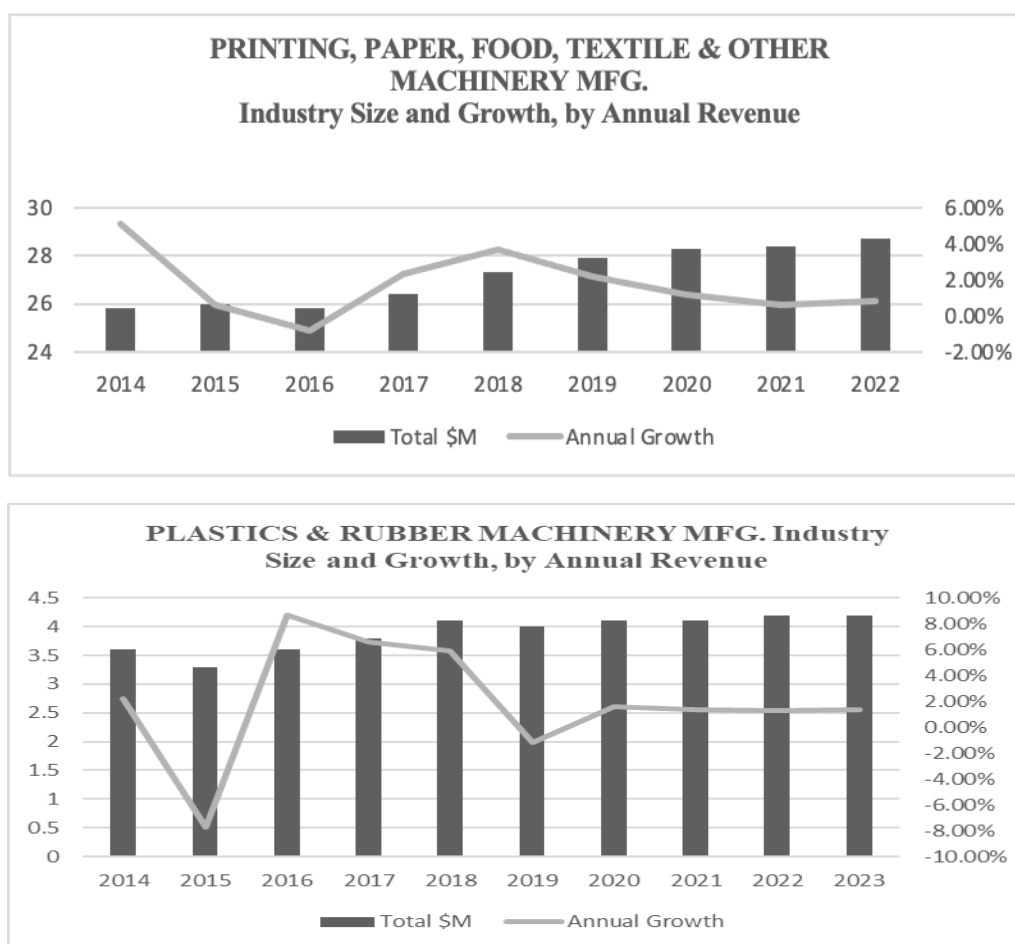
Company X leaders understand the importance of measuring results; however, they have not put into place formal measurements of internal processes. Company X also does not have a formal performance management system to measure product and process results. The leaders are proud of the small family-friendly environment and culture they have cultivated over the last 50 years. Most of the employees are legacy employees and have long tenure with the organization. Company X leaders consider the employees the subject matter experts of each division and rely on them to resolve concerns, communicate with customers, and recommend processes for improvement. RBV theory and the Baldrige Performance Excellence Program (2019) underscore the importance of measuring results to improve results and competitiveness. RBV further aids leaders in understanding and identifying performance-based and transferable practices that ultimately create competitive advantages in organizations.

An analysis of the industry and markets in which a company operates provides insights into the past, present, and future financial performance of industry stakeholders. The niche market in which Company X operates is the machinery manufacturing industry. In 2018, annual revenue for this industry was estimated at \$27.3 billion, with

revenue being generated from 2,779 companies and 82,226 employees. The average revenue per company was \$9.8 million, with an average of 30 employees per company. From 2019-2023, industry revenue is forecasted to increase by 1.1%. Figure 7 below shows the industry and market trending for this manufacturing sector. Table 14 represents the specific industries in the market that are generated and predicted to generate the most revenue.

**Figure 7**

*Industry and Market Trending 2019-2023*



**Table 14***Market Approach-Transaction*

Business Description	Revenue \$000
Designs and Build Metal Injection Products and Molding	\$17,242
Machinery and Equipment Manufacturing	\$13,356
Design and Manufacture Specialized Equipment for Pharmaceutical, Chemical, and Food	\$11,400
Provides Special Industry Machinery	\$6,733
Custom Machine Manufacturer	\$6,092
Manufacturer and Distributor of Light Industrial Equipment	\$4,927
Manufacture of Customer Equipment-Extrusion	\$2,234
Manufacture of Various Machines Used in Plastics	\$1,944
Machine Equipment Manufacturer	\$1,873
Blow Molding Machinery for Plastics Manufacturing	\$829
Manufacture, Industrial Machinery	\$500
Plastic Injection Molder, Specifically Micro Molded Parts	\$314

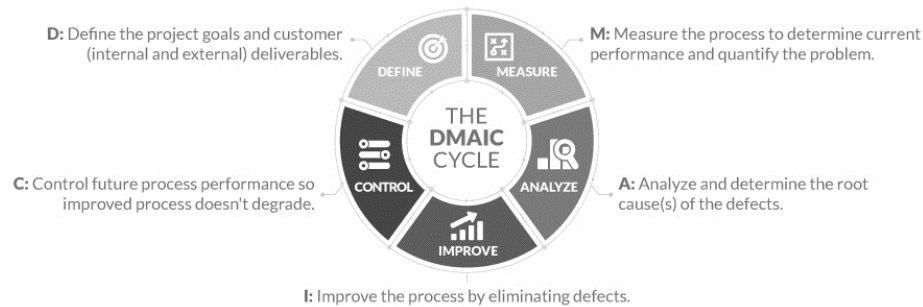
Revenue trending upward in this market is correlated with economic trending and international trade of industrial and consumer products. These segments of the market constitute large market opportunities for industry suppliers. This positivity in trending is an opportunity for Company X to capitalize on internal manufacturing processes and products it already creates to secure a competitive advantage. Products like rubber, semiconductors, ceramics, foundry molds, pharmaceuticals, and all the parts for microwave heating equipment and transmitters that Company X produces are niche products that drive profit in their organization. RBV states that resources must be rare, valuable, and hard or impossible to imitate. The next step for Company X is identifying how its internal resources, such as the parts it creates and the services it provides, can be diversified and positioned as competitive advantages in the industry.

As a manufacturing organization, Company X could benefit from the application of Lean Six Sigma process improvement recommendations in making the transition towards a successful diversification strategy. Lean Six Sigma is a systematic approach that aids organizations in reducing or eliminating steps in processes that do not add value. Lean Six Sigma methodology emphasizes removing wasteful steps that make processes inefficient and that do not add value to the organization or the customer. Utilizing Lean Six Sigma methodology ensures that organization's focus on quality over quantity and place value on customer satisfaction with goods and services. As Company X is a small company with few employees, the opportunity to gain efficiencies and ensure consistency is critical to the sustainability of the organization. Loss of time and energy focused on activities that are not value add create further inefficiencies in the strive toward business sustainability. Additionally, not regularly analyzing the steps in the current processes nor innovating products and services does not place the organization in a position to build competitive advantage or lead the market.

The popularity of Lean Six Sigma methodology has grown over the years in use and adoption, specifically in manufacturing environments. It is also common that late adopters are hesitant to implement frameworks for lack of understanding or lack of resources. Similarly, the Baldrige Excellence Framework has also increased in popularity in the manufacturing industry; however, adoption is slow due to the misunderstanding of use (Baldrige Performance Excellence Program, 2019). Karambelkar (2020) explored the decreased involvement of manufacturing organizations in the use of the Baldrige Excellence Framework. Karambelkar's results indicated that even though the Baldrige

Framework supports an organization's value, manufacturing companies are slow to adopt the framework. Throughout this study, I was able to respond to objections of recommendations to Company X that were based on Baldrige through the common understanding of Lean Six Sigma principles. Narkhede (2017) explored the link between utilizing internal resources and securing competitiveness using an identified framework. There are many options of improvement frameworks, but my recommendation is that Company X implement the principles of Lean Six Sigma, specifically the DMAIC process, to identify inefficiencies with the current processes.

The DMAIC (define, measure, analyze, implement, and control) process of Lean Six Sigma, as explained in Figure 8 below, is based on understanding what mixture of methods will ensure the biggest impact on the business. Six Sigma methodologies are also designed specifically for manufacturing processes. Customer experience is central to Six Sigma methodology, which can provide a systematic outline to Company X in reaching its ultimate goals of increasing customer satisfaction, improving innovation, and reaching sustainability. Utilizing the DMAIC process will allow Company X to conduct a comprehensive review of their current processes and products and define the processes that most closely align with their strategic objectives.

**Figure 8***Lean Six Sigma DMAIC Improvement Process***THE SIX SIGMA DMAIC IMPROVEMENT PROCESS**

As previously stated, Company X leaders admit there has been a lack of focus on documenting metrics as the organization successfully operated as a family-owned business and was successful for over 50 years. The last 5 years have presented challenges as international competitors entered the market, customers became more price-conscious, and production of the main business line slowed. The parts business has remained steady in revenue and has presented the opportunity for Company X to shift into parts and service offerings only to remain profitable. However, a lack of inventory or waste management system threatens profits for the parts business and presents additional challenges for Company X as they seek to grow this business line without formal processes.

For Company X, the waste management process presents the best opportunity for meaningful improvement. The niche parts are made and stored, sold, and restocked without the use of an inventory management system. Momeni and Azizi (2018) and Turrini and Meissner (2019) examined the importance of managing inventory and reducing waste in manufacturing organizations. Throughout my review of Company X's

internal documents and semistructured interview responses, there is no formal inventory management system, which makes it hard to forecast supply and demand. Utilizing the DMIAC process to analyze the waste management process and create a more efficient inventory management system could help Company X better allocate internal resources towards diversifying the parts business. Keeping the most ordered parts in stock decreases service time and increases customer satisfaction. Both of which are critical in considering a new business model of sales and service.

I utilized RBV theory, and the standards recognized by the Baldrige Performance Excellence Program (2019), in this single qualitative case study to identify diversification strategies manufacturing business leaders use to achieve sustainability. Company X sought to identify market segments to enter utilizing their current resources as the company could not afford to enter new markets with new products. Industry drivers and determinants of the machine and manufacturing industry show upward trends in demand for the food processor market, health foods, and convenience packaging, as well as increases in the automotive and construction markets. All of which currently use like products produced or that can be repurposed from Company X's niche. The recognition of these market indicators as opportunities for Company X's diversification strategy proves that senior leaders understand their internal strengths. Senior leaders can use RBV to develop underutilized resources to drive growth, thereby increasing diversification. Resource based advantages may evolve out of uncommon situations and circumstances, leading to improved results (Hitt et al., 2016). Similarly, the Baldrige Excellence Framework supports the idea of utilizing internal resources to create a competitive



advantage (Baldrige Performance Excellence Program, 2019). The Baldrige Performance Excellence Program (2019) advocated that leaders should manage opportunities to create innovations that capitalize on strategic opportunities within their organizations. Using these frameworks could help Company X create and identify profitable strategies with minimal financial risk.

### **Customer Results**

The customer results section contains information about how Company X measures and analyzed the overall satisfaction or dissatisfaction of their customers. The Baldrige Performance Excellence Program (2019) authors explained that customer satisfaction and dissatisfaction results provide critical information for organizations in understanding their customers and the market trends. Company X leaders do not formally measure customer satisfaction or dissatisfaction and do not have formal performance management systems in place. Senior leaders stated that their focus is on providing quality products, innovative technology, employee and customer-focused philosophy, and providing a comprehensive product catalog. This philosophy has worked in the past and is attributed to the preservation of the business.

Company X bases customer satisfaction on the leader's estimation of customer satisfaction. This is ineffectively measured by the lack of interaction and lack of engagement by the customers. Company X operates within a niche market with a small number of competitors, which has allowed the organization to flourish for 50 years without the continuous need for product innovation or an intentional focus on customer service initiatives. However, over the last 5 years, customer requests for market

innovation and high-level customer service expectations have catapulted competitors to leading market positions. Additionally, competition from foreign markets such as China has undercut pricing and forced UNITED STATES manufacturers to innovate to survive. To ensure survival, Company X could benefit from creating a customer focus strategy aimed at increasing customer engagement and securing customer loyalty.

Company X currently offers customers 24-hour accessibility to reporting and obtaining help with problems incurred and service needed with machines. However, there is no proactive strategy to reach out to customers, check-in, or ask questions regarding satisfaction before there is an issue with a product or a need for service. The research question for this study was: What strategies do manufacturing business leaders use to diversify lines of business for achieving sustainability? Relationships with customers are a key part of the success of any business, and leaders seek to build solid and long-lasting relationships with customers. Additionally, when creating a servitization strategy, customers define value as well as the perceived benefits of any service-led strategy (Sakyi-Gyinae & Holmlund, 2018). Any diversification strategy implemented by Company X will require a customer focus to be successful. Customer satisfaction and loyalty are the main drivers of servitization, of which one cannot exist without the other.

Proactive measurement of customer satisfaction can be achieved by implementing customer satisfaction surveys, post-service customer surveys, or net promoter scores. Proactive customer satisfaction measurement systems are intended to support organization efforts to predict and respond to customer needs before they become problems (Söderlund & Sagfossen, 2017). This ultimately increases customer loyalty and

creates a competitive advantage. Currently, most of Company X's revenue is generated by three clients. A focused satisfaction strategy could start with surveying these clients to get a baseline understanding of their satisfaction with Company X products, services, and needs for additional services. Table 15 illustrates a customer-focused feedback survey that Company X could implement after every contact with their 3 main customers.

**Table 15**

*Post Service Customer Survey*

Open-Ended Questions	Rate from 1 to 5: 1 being the lowest, 5 being the highest the following:
<ul style="list-style-type: none"> <li>• What is your overall satisfaction with Company X?</li> <li>• How likely or unlikely are you to contact Company X again for help with service?</li> <li>• How likely or unlikely would you be to recommend Company X products/services to a friend or colleague?</li> </ul>	<ul style="list-style-type: none"> <li>• Courtesy from sales staff</li> <li>• Representative's availability</li> <li>• Representative's knowledge</li> <li>• Reliability of returning calls</li> <li>• Friendliness of the sales staff</li> <li>• Complaint resolution</li> <li>• Responsiveness to inquiries</li> <li>• After-sales service</li> <li>• Technical service</li> </ul>

The shift to a servitization strategy will require an even greater emphasis on customer satisfaction and value. There are fundamental changes necessary to ensure survival and sustainability for an organization undergoing a servitization transition. Measuring customer satisfaction is a critical step in creating an overall attainable and sustainable strategy and separates industry leaders from their competitors. Gu, Jitpaipoon et al. (2017) explored the importance of customer satisfaction in securing customer loyalty to an organization. The absence of a strategy that is customer-centered and lacks

innovation and agility leads to the failure of organizations overall as it pertains to growth and sustainability. RBV underscores the value resources bring to the customer and the importance that the identified resources bring value to the organization as well as the customer. Implementing processes that gain customer perspective will aid Company X in determining which products and services have the most value to the customer. With limited resources, decreasing guesswork and decreasing risk by focusing on the most value-added processes and services can further increase their chances at success when diversifying.

### **Workforce Results**

Company X does not have formal measures of performance in place that analyze the performance of its workforce. However, senior leaders consider the workforce as one of their strategic advantages due to the tenure, institutional knowledge, experience, and tacit knowledge capabilities. The workforce is tenured and loyal, and the consistency of knowledge and support has helped the company thrive for over 50 years. Company X leaders consider and treat each employee as a subject matter expert and depend on their tacit knowledge and expertise to deliver on company objectives and customer expectations. The absence of complaints or dissatisfaction by customers further reinforces the lack of a need for any formal processes regarding the workforce. Additionally, Company X turnover has remained at less than 1% over the last 10 years, which is indicative of positive employee satisfaction results.

Company X does not have an official performance measurement system in place to evaluate the company's workforce performance. However, the implementation of

documented performance management processes could further develop the workforce and aid in moving the organization forward cohesively. According to the Baldrige Excellence Framework (Baldrige Performance Excellence Program, 2019), implementing performance measures are representative of a systematic and collaborative approach toward achieving strategic goals between the organization and its workforce. Company X leaders thought that performance measurement processes were not necessary for the organization due to employee loyalty and the level of respect given by management. However, the absence of such processes can lead to the resurgence of mistakes and hinder the growth of both employees and the organization. Additionally, according to RBV, measuring performance is key in enhancing employees' ability, increasing motivation and opportunities, which ultimately contributes to the organization's sustainable competitive advantage (Delery & Roumpi, 2017). Company X has the people in place to help the organization achieve sustainability; however, managing the performance of the workforce will help them create sustainable growth and development for the present and the future.

Company X's workforce is essential in their strategy to diversify. Gaining buy-in from these groups will help to ensure smoother transitions as the organization experiences significant change and challenges ahead. Transitions to servitization can be aided or hindered by current staff, according to Lenka et al. (2018). The results of this study indicated that servitization efforts face resistance by current employees in organizations, and to decrease the level of resistance, management must adopt tactics to shape behavior. These include implementing processes that leverage, evangelize, and

collaborate to bolster acceptance by staff. Company X has a unique advantage in the level of trust and loyalty of the current staff. In accordance with RBV theory, the staff is considered an internal resource that constitutes a competitive advantage for Company X. Identifying for staff the parameters of performance, outlining expectations, and allowing involvement from staff will further help Company X maintain the current employer/employee relationships but also create concrete processes aimed at achieving sustainability.

### **Leadership and Governance Results**

The senior leaders of Company X have proved strong leadership and governance results. Governance results indicate that the leaders comply with highly regulated compliance and health and safety requirements stipulated by the manufacturing industry. Failure to maintain compliance with health and safety requirements could be detrimental to the organization and lethal to its employees and customers. Based on the information outlined in the Baldrige Performance Excellence Program (2019), Company X's leadership and governance results appear strong in part due to (a) passing scores of all inspections in the last 5 years for machinery specifications and safety and (b) 0 reportable incidents or accidents in the last 10 years. Governance results indicated that the company follows all laws and regulations regarding safety compliance, legal and regulatory compliance, and filings. The financial records are spot audited by the COO; however, they have not been formally or regularly audited. Company X employs an internal certified public accountant (CPA) and outsources review of the financial documents and records to an outside firm for checks and balances. Quantitative data to represent

leadership and governance results are not available; subsequently, I have limited quantitative evidence to support or analyze positive trends in leadership and governance for Company X.

Company X's senior leaders govern conduct in the organization by modeling standard behavior that sets expectations for staff. Company X's values were built over time, and the company expects all employees to display mutual respect and courtesy to each other, customers, vendors, and stakeholders. The leaders of Company X do not have in place formal systems of analysis to measure the effectiveness of their leadership expectations; however, the organization considers organizational success, an engaged and productive workforce, satisfied customers, good business relationships with vendors and suppliers, and strong community partnerships as indicators and positive representations of strong internal leadership. Additionally, successful governance and compliance results are determined by the actions of employees, the organization's compliance with all laws and regulations, and by the full contribution of the owners of the company.

Company X leaders expect employees to abide by a code of conduct that emphasizes respect, transparency, and accountability. Employees are encouraged to ask questions and seek management's help in resolving them internally or externally. However, employees are empowered to resolve conflicts on their own with and for customers and stakeholders. Company X leaders believe employees are invested in the company's mission and values. Unethical behavior is not tolerated, and any violations of company policy or ethical expectations result in immediate termination from the organization. Company X has not terminated any employee for unethical behavior in the

last 10 years. Although qualitative data pertaining to leadership and governance was not available, Company X rates the organization as high in this category as evidenced by its ability to sustain an engaged workforce, demonstrated compliance with regulatory requirements, and creation of a culture of positivity and respect. These results confirm the senior leaders' involvement and consistency in governing the organization. However, collecting data beyond self-reports by leadership would strengthen the credibility of the results in this category.

### **Financial and Market Results**

Company X leaders monitor financial performance often and rate their financial performance and market results as declining and not adequate for business sustainability. Profitability over the last 5 years has declined, and the organization has faced business closure several times over the last 2 years based on the review of the 5-year historical balance sheet represented in Table 16 below. The purpose of this study is to explore strategies towards diversification and, ultimately, sustainability. The cornerstone of this study is the importance of Company X understanding the next steps in strategy and innovation necessary for the continued profitability and growth of the organization.

Machinery manufacturing industries are in the mature stage of the life cycle, with revenue trending downward. Demand is generally cyclical and characterized by long lead times between orders and shipments. Other industry drivers and detriments include the demand from key markets in the printing, paper, food, and textile industry that is impacted by equipment replacement cycles, unanticipated changes in consumer spending, as well as population and income changes. Additionally, demand from the food



processors market has shifted to growth in health foods and convenience packaging, while demand from the apparel market has primarily shifted overseas. In the plastics and rubber industry, key markets are driving downstream, and cyclical demand is for manufacturers of plastic pipes (primarily construction-related), bottles, and containers, tire manufacturers, and automotive manufacturers. Demand from the automotive and construction markets is expected to increase in the next year to 5 years, respectively.

**Table 16**

<i>Company X Historical Balance Sheet</i>					
	2015	2016	2017	2018	2019
Total assets	2,142,847	2,265,355	1,584,344	625,934	1,696,738
Total liabilities	1,751,164	1,664,693	990,003	110,841	1,634,093
Total liabilities and equity	2,142,847	2,265,355	1,584,344	625,934	1,696,738
Debt free working capital	541,625	627,206	575,783	520,133	66,756

The trends of the markets in which Company X currently operates present opportunities for a diversified product strategy and service implementations. The transformation of business is a constant reality and challenge incurred by business leaders (Mancha & Gordon, 2021). Innovations in customer requirements, technology, and competition have caused companies to take a more detailed look at the products and services they offer and determine if the current business models are sustainable for the business and in society. Compromising, visioning, strategizing, performing, and assessing the business goal is a critical element in transforming businesses, and practices ultimately shape the business model and its effectiveness within the organization.

Utilizing current market trending analysis and comparative data can provide Company X with the context needed to make diversification decisions and underscores a

need for continuous assessment of business models as well as the need for transformation. Transformation is necessary for survival in all businesses. The multi-use of a core product can open multiple streams of revenue for an organization, as illustrated by the core principles of the RBV theory. Though Company X's current business is heavily product-based, the new business will focus on servitization and diversification, both of which are needed to revitalize the business.

### **Key Themes**

To identify key themes, I analyzed the responses received by each study participant during the semistructured interviews, as well as through a review of the internal resources and documents, the website, and other available public information. The key themes from the thematic analysis of all resources are as follows (1) the need for the implementation of servitization strategies to diversify the lines of business, (2) the need to convert internal resources to sustain the business and build competitive advantage, and (3) the need for stakeholder agreement to move forward with any of these strategies. The key themes may aid Company X leaders in further understanding their strengths and weaknesses but also in acknowledging their opportunities to improve their market positions and achieve sustainability. Using RBV theory as the lens to aid in the identification of internal resources towards implementing a diversification strategy, leaders in Company X should implement actions to ensure sustainability.

According to the Baldrige Performance Excellence Program (2019), processes and results are how organizations demonstrate the quality of their products and services as well as the value they provide to their customers. The analysis of the key themes of

this study identifies Company X's strengths regarding the process as well as the company's process opportunities, results strengths, and results opportunities.

Additionally, the focus of this section is to evaluate these components utilizing levels, trends, comparisons, and integration as described in Baldrige Performance Excellence Program (2019).

### ***Process Strengths***

According to the Baldrige Performance Excellence Program (2019), the most successful organizations align their operational activities with their strategic goals. Fully integrated and documented processes can aid organizations in creating competitive advantage and ensuring sustainability. Company X leaders have some organizational processes that are fully formed and some processes that are not documented or retained for future use. The strengths of Company X include the positive and trusting cultural environment both internally and externally, the subject matter expertise of the workforce, and the organization's management of the finances. The organization's methods of knowledge management and process documentation are opportunities for improvement. In the following sections, I used the ALDI (approach, learning, deployment, integration) evaluation method of the Baldrige Performance Excellence Program (2019) to analyze each of the process strengths.

**Financial Management Process and ALDI Evaluation (Strengths).** As stated earlier, Company X has been in business for more than 50 years. The organization has endured highs and lows in profitability and growth during that time. Company X has survived by properly managing and reviewing its financial records and position and

utilizing funds in the most appropriate ways needed to ensure sustainability. The organization carried a positive cash reserve for most of its 50-year history but was ultimately not prepared for a downturn in market trends and evolving customer needs. The last 5 years have decreased the financial reserves; however, Company X has remained agile and frugal in utilizing funding and has been able to redirect profits to leverage business results. The company has accomplished this by decreasing the salaries of the top two organizational leaders, reduced full-time employees to part-time, utilized outside consulting and free interns as resources, and reduced the overall number of staff. These changes have allowed the organization to remain in business and allowed the leaders the opportunity to focus on the next strategies of diversification towards attaining sustainability for Company X.

The organization's financial management process is a strength because the leaders have taken their fiduciary responsibilities seriously and have acted to ensure sustainability for the business by (1) employing several outside services, mentors, and outsourcing firms in order to implement checks and balances in the organization financial records, (2) making financial decisions that support the company's goals that underscore the unique and fragile current financial position, and (3) by seeking to diversify current products and services in order to reduce costs and take advantage of growth opportunities necessary for survival. The leaders acknowledge the current financial position is not sustainable and understand the importance of employing diversification strategies, increasing revenue, and gaining customers are to the overall viability of the organization.

**Positive and Trusting Cultural Environment (Internal and External) ALDI**

**Evaluation (Strengths).** Another strength of Company X is the relationships that have been fostered both internally and externally amongst the staff and community due to the longstanding history of the organization. Company X's reputation in the community has helped them create longstanding partnerships that have benefited the company financially. The positive and trusting cultural environment is a strength for Company X and is part of the organization's competitive advantage. The leaders consider their reputation with all stakeholders and the surrounding community as business decisions are made. Company X leaders take their reputation in the community seriously and take pride in their ability to provide stability and meaningful careers to community members over the years. The leaders have also given back as mentors, supporting internships, and participating in other social impact events in the community.

**Subject Matter Expertise of the Workforce ALDI Evaluation (Strengths).**

Lastly, the workforce of Company X is their biggest strength. Before the financial downturn, the tenure of Company X employees was approximately 20+ years. Company X greatly benefited from this long-standing tenure as it allowed the company to reach maturity faster due to low turnover and greater efficiency. Tacit knowledge grew in the organization, and knowledge was transferred amongst the staff who applied it to their everyday productivity goals. Customer satisfaction also grew as customers were comfortable with organization operations and efficiencies and returned for repeat business over and over.

Though this is a strength for Company X, the subject matter expertise of the workforce ranks lower than the financial management process and the positive and trusting cultural environment due to the lack of a knowledge management process that would create explicit knowledge from the tactical knowledge and expertise of the workforce. The lower placement under the process strengths category means the process is a partial strength for the organization (Baldrige Performance Excellence Program, 2019). I rated the subject matter expertise of the workforce lower than the other strengths due to the absence of a knowledge management process which leaves Company X vulnerable to knowledge loss and greater inefficiencies as there is the voluntary or involuntary turnover of the workforce.

### ***Process Opportunities***

In the next sections, I used the ALDI evaluation approach to identify opportunities for improvement (OFI) for Company X. OFI's represent the organization's best chances to implement successful diversification strategies towards attaining sustainability. The financial management process was both a strength and an opportunity, and the processes regarding documentation also represent OFI's for Company X.

**Financial Management Process ALDI Evaluation (OFI's).** Finance and financial management are some of the most important aspects of business management philosophy and become even more important in businesses that are struggling to achieve and sustain profitability. Consistent management of daily cash flow, transactions, inventory, credit, and debt help the organization understand and plan where to spend and when to spend. Understanding the financial snapshots of the business can aid Company X

in developing the long-term and short-term goals and deciding what is reachable and relevant. Management of limited funds in any organization also forces leaders to determine which dividends become earnings and which are applied back into the business.

In Company X's case, current revenues are split between staff and implementing diversification strategies. Increasingly more industrial organizations are moving towards servitization strategies to improve profitability. However, there are significant challenges with implementing a servitization strategy successfully the first time around, according to Zhang and Banerji (2017), who developed a set of hypotheses and built a theoretical model to explain the underlying relationships. The researchers further identified five challenges to organizations seeking to servitize that are: organizational structure, business model, development process, customer management, and risk management. When companies achieve strategic benefits by overcoming the challenges, they are more likely to achieve financial profits and retain customer loyalty. Company X scores low for financial management in this category concerning the ability to financially support diversification and implementation of servitization strategies. The organization achieved this score because they are in the beginning phases of diversification of internal resources and the beginning stages of learning how to implement a servitization strategy. For Company X, the implementation of diversification strategies is in the beginning stages. The organization is recently overcoming the financial deficits of the past 3 years and finally can focus on future strategies regarding diversification.

Company X is preparing to diversify by transitioning to a servitization strategy and has a clearly defined supply chain for the current business; however, the senior leaders are not sure how to proceed in creating a hybrid supply chain for the new servitization strategy. Prasetyanti and Simatupang (2015) and Yoo (2020) explored the theories of product-dominant and service-dominant strategy in manufacturing organizations and introduced frameworks to help organizations through this type of transition. Gu, Song et al. (2017) focused on delivering value through the supply chain in a service-oriented manufacturing business. Focusing on the supply chain in service-oriented businesses is even more important in delivering customer satisfaction and value. There is a growing trend of manufacturing organizations transitioning to service-oriented businesses. Total quality management practices must be implemented and consistently carried out to build supply chain relationships and ensure a functioning and successful service-oriented supply chain.

Though the relationships built in the past were strong, the lasting effects of those relationships have steadily decreased over the last 5 years. Relationships were developed with people rather than entities, and as people and relationships age, the ties that bind have been broken. OFI's include Company X shifting focus from personal relationships to creating supply chain relationships with vendors that benefit their diversification focus. As manufacturing organizations move toward servitization strategies, more emphasis is placed on the partnership, relationship, and networks rather than products (Prasetyanti & Simatupang, 2015). Company X has focused and depended on the relationships with the staff, community, and stakeholders since the business began. These relationships are



regarded as an organizational strength as well as a source of competitive advantage for Company X.

**Process Documentation ALDI Evaluation (OFI's).** As the staff was tenured and comfortable in their positions, there is a lack of explicit knowledge and knowledge management processes at Company X. Company X also has a lack of documented processes. The organization leaders have not created or disseminated written documentation of processes and expectations to the workforce, which presents a risk for the organization. Comparative data is scarce and not normally captured or available. OFI's are the implementation of a knowledge management system and process for Company X. Moving towards diversification will change the underlying constructs of the organization; managing previous and new knowledge will help the organization endure transitions of new and old processes for years to come. A KMS system would allow Company X to have policies, procedures, regulations, past failures, and successes documented to refer to when needed as well as help in forecasting and future innovations.

Organizations need to adapt their business models to meet the requirements of successful servitization and thoroughly understand the systems needed to implement a servitization strategy (Weeks & Benade, 2015). Change management difficulties are often encountered with the respective systems involved. Also, servitization efforts face resistance by current employees in organizations. Management must adopt tactics to shape behavior to decrease the level of resistance (Lenka et al., 2018). Strategies include leveraging, evangelizing, and collaborating to bolster acceptance by the staff of servitization. The structure of strategy is just as important, if not more, than the strategy

itself. Baines and Lightfoot (2014) explored the practices and technologies organizations with successful servitization strategies use to deliver service. The results of their study indicated that six technologies and practices constantly appear in these organizations. These are facilities and their location, micro-vertical integration and supplier relationships, knowledge management and communication technologies, performance measurement and value demonstration, people deployment and their skills, and business processes and customer relationships. The inferences of these studies further underscore the positive effects a KMS could have for Company X.

### ***Results Strengths***

The senior leaders of Company X provided proof of strengths in their organization for the results strengths category. The 7 categories by which performance is measured according to the Baldrige Performance Excellence Program (2019) are product and process results, customer results, workforce results, leadership and governance results, and financial, market, and strategy results. Evidence of these results is the measurement by how Baldrige identifies successes and opportunities. Company X can use the results of these categories to identify their strengths and solve for their opportunities. The key theme analysis in this study indicated that Company X's strengths are in workforce results and product results. Using the LeTCI (levels, trends, comparisons, and integration evaluation) method of the Baldrige Performance Excellence Program, I analyze the strengths of the results of Company X in the following sections.

**Workforce Results and Product Results LeTCI Evaluation (Strengths).** The result strengths of Company X include high self-reported levels of workforce

engagement, trust and loyalty, industry niche products and services, and self-reported long-tenured positive relationships with customers, stakeholders, and the community. As mentioned, several times in this study, the trust and loyalty of the workforce is a key strength based on data analysis findings. I determined that Company X's areas of strength are in the workforce results, leadership and governance results, and some areas of financial management results categories.

**Workforce Results LeTCI Evaluation (Strengths).** Voluntary turnover at Company X has remained at less than 1% over the last 10 years. Company X is a family-oriented organization that understands the strength of its workforce and shows appreciation and gratitude for its staff daily. Company X treats their workforce as family, and that devotion has been reciprocated over the years and is now a strong competitive advantage for the organization. Moving towards implementing diversification strategies, it is critical that employees are considered the most valuable assets, and strategies are developed that addresses job security, stability, and employee growth, which will be necessary to retain current employees and keep turnover low.

The employees are stakeholders, and stakeholder agreement at all levels will determine the future success of the organization. Bacq and Eddleston (2018) supported organizations sharing their strengths and weaknesses with stakeholders and how this practice builds loyalty and boosts reputation for the organization. The results of their study were viewed through the lens of the RBV theory, which further supports the framework of this study. Organizations that practice entrepreneur-centered stewardship increase their chances to receive funding and increase income, while those organizations

that focus on employee stewardship culture attract low funding support and have a low ability to generate additional income (Bacq & Eddleston, 2018). For Company X, understanding this concept presents a direct path to increase income while utilizing their greatest asset as a competitive advantage.

**Product Results LeTCI Evaluation (Strengths).** Company X has operated in a niche market with niche products for over 50 years. The company has created a competitive advantage within its product offerings and enjoyed the benefits of the niche industry. However, downward trending revenue is indicative of the changes in the market as well as the changes in customer requirements and expectations for products and service innovations. Economic growth in the United States is trending downward and is driven by a slowing of business spending on equipment and structures. Manufacturers are moving towards servitization strategies because of the opportunities associated with service offerings for the potential to increase in value. Crick et al. (2018) indicated that it is important for business leaders to adapt businesses to changing circumstances and that leaders need to account for social as well as business-related changes when developing solutions. Understanding these principles and how they affect the market in which Company X operates is critical to its overall diversification strategy and the achievement of sustainability.

To survive the competition and industry changes, organizations need a comprehensive strategic planning initiative and an adequate marketing plan. Cyclical patterns in business are expected but developing concrete direction towards improvement and adaptability is critical to continued success. Company X leaders struggle with

transitioning from a traditional business model to a diversified strategy and are unsure of the next steps. However, creating a strategy that encompasses the facets of servitization and utilizing internal resources as suggested by the RBV can aid the organization in securing a better market position and meeting its strategic goals.

### ***Results Opportunities***

Through my review, I determined that senior leaders of Company X have several OFIs in the market and strategy results categories. Their opportunities include the workforce's level of engagement, trust, and understanding. In addition, Company X has not established a systematic approach to diversification, is in the beginning stages of creating a resource diversification strategy and is also in the beginning stages of aligning customer's requirements with internal and external stakeholder expectations towards a diversification strategy.

There are also gaps in the data regarding many of the results categories, which make it difficult to ascertain the complete effects overall. Senior leaders recognize and understand that gaps in data hinder progress and implementation of new strategies. Leaders will improve their collection, storing, and review of data. LeTCI evaluation approach in the next sections to review the opportunity results.

**Market and Strategy Results LeTCI Evaluation (OFI).** Differentiation and customer satisfaction with products and service offerings are what drives competitive advantage and sustainability. Selecting the right partners in providing new services also positively or negatively determines the success of a servitization strategy. The realization that servitization has increased in popularity provides more research to guide Company X

leaders toward implementation. Servitization has offered struggling manufacturing businesses a way to revitalize their business models, redefine their target markets and enhance their product offerings. Valtakoski (2017) developed a knowledge-based perspective on servitization to explain the variations in servitization effectiveness. Servitization failure means a business was not successful at developing a comparable service product and deservitization represents organizations reducing the role of service in their new servitized business or abandoning the concept altogether. Servitization and deservitization, specifically, is a realignment between the organization and the services it provides and what the customers expect. Understanding these strategies aid manufacturing organizations in identifying the tactics necessary to succeed from an internal individual level and to explore the dynamics of transitions. Also, Company X can benefit from understanding how shifts can be hindered by current staff. Overall, servitization has a direct impact on return on investment (Szasz et al., 2017). The return on investment is significantly higher in less economically developed contexts.

For Company X, the greatest opportunity to sustain the business is to implement diversification strategies such as servitization. Company X leaders admit and understand that without drastic changes to the business model, product offerings, and growth in sales and customer loyalty, the future of the organization is bleak. Employing servitization strategies affords the organization the greatest chance to utilize resources they already own to drastically help reverse the current financial situation. Throughout this study, the review of documents and resources, as well as conversations with Company X leaders,

they are emotionally invested in the survival of the business and are now in a position and place to implement changes in securing its continued existence.

### **Project Summary**

The transformation of business is a constant reality and challenge incurred by business leaders. Innovations in customer requirements, technology, and competition have caused companies to take a more detailed look at the products and services they offer and determine if their business models are sustainable for the business and in society (Kopnina & Blewitt, 2018). Manufacturing business leaders regularly encounter challenges with the constant need for continuous assessment of business models and the need for transformation. However, to ensure sustainability, leaders should implement strategies that include compromising, visioning, strategizing, performing, and assessing the business goal as these practices ultimately shape the business model and its effectiveness within the organization (Vidgen et al., 2017). Some manufacturing leaders, such as those at Company X, may explore strategies that include diversification through servitization as an avenue toward growth and sustainability.

In this study, I analyzed diversification strategies used by manufacturing business leaders of Company X to achieve business sustainability. To evaluate the strengths and opportunities for improvement within the organization, I used the 2019-2020 Baldrige Excellence Framework criteria and determined Company X's progress in the 7 Baldrige categories that include leadership, strategy, customers, workforce, operations and analysis, measurement, and knowledge management.

I interviewed senior leaders of Company X as well as reviewed internal documents, available public information, and the organization's website to gather data and obtain information regarding their sustainability and diversification strategies. I was then able to connect the data to my research question to align the study goals and outcomes. In interviewing the study participants and through reviewing the internal company documents, the leaders of Company X provided information regarding the processes of the organization and how the processes support the people, process, and products of the organization. The primary thematic findings of the data gathered were (a) the need for the implementation of servitization strategies to diversify the lines of business, (b) the need for strategies to convert internal resources to sustain the business and build competitive advantage, and (c) the need for stakeholder agreement strategies to move forward with any of these strategies. The findings and recommendations of this study could help the senior leaders at Company X create foundations in processes and procedures as well as innovations with customers and products that will increase their chances for positive business growth and aid in reaching their goal of business sustainability.

If Company X leaders can create effective diversification strategies, they may be able to increase organizational growth and market share as well as sustain the business for years to come. Manufacturing business leaders who recognize inevitable changes in the market and those who put plans into place to address the trends are most likely to survive, while those that do not adapt will be less likely to sustain business as usual (Ghobakhloo, 2018). Company X is a small, family-owned organization, and decisions in



the past have been solely determined by the CEO. These decisions are now made by the COO; however, buy-in from the CEO is necessary legally and ethically. According to Zahra (2018), risk-taking is critical in family-owned organizations to ensure growth and to remain profitable and sustain a business. The dynamic between the two leaders has led to varying ideas of how the organization should shift to sustain.

Bellini and Dulskaia (2017) asserted that there are many variables in complex processes and that often decisions are based on feelings and previous experiences rather than an objective evaluation of the social, economic, and technological factors. There are critical factors that underscore innovation strategy; these include the innovation potential, social acceptance, and technological accessibility of the chosen business model. Aligning the goals of all stakeholders is pertinent to ensuring smoother transitions into unknown territories such as product innovation (Walden et al., 2020). All the participants mentioned in the semistructured interviews the role the disagreements between the CEO and the COO have on the organizational strategy and in determining how the organization will move forward. Alignment and trust between the two leaders would have a significant effect on the level of confidence the workforce and the customers have in the strategy to diversify the business model.

Over the last 2 years, the COO has commissioned several processes to aid in identifying the best opportunities to achieve sustainability. These strategies include participating in this study, retaining a financial consulting firm to conduct an organization valuation to determine current and future profitability and options, explored workforce models to include interns, part-time and temporary staffing solutions, and has begun

exploring the diversification of markets for the internal and available resources.

According to Crick et al. (2018), ensuring a lasting business model is dependent on effective and comprehensive strategic planning, defining concrete direction, and adaptability. The exploration of these strategies was necessary to the COO's understanding of the challenges Company X will incur in identifying solutions.

Company X's planned diversification strategy contains many of the necessary requirements to ensure a successful implementation. The senior leaders have identified current internal resources that can be reimagined to provide innovative solutions to varying customer markets. The use of current vendor relationships in support of new methodologies also requires minimal changes to implement. The current vendor and partner stakeholder relationships represent a strength for Company X and will allow them to make changes in strategy efficiently. Yang et al. (2015) examined the positive influence strategic alliances have on meeting organization objectives when the shareholders share common objectives. Effective communication between shareholders and the level at which partners share goals influence overall organization success. Company X partners are stakeholders who can affect the overall success of a diversification strategy.

The organization has also identified and created a strategy to focus on measuring, analyzing, and increasing customer satisfaction. Determining what customers want can aid Company X in determining which resources have the greatest potential to increase the organization's profit and growth. A service-led strategy, such as servitization, is focused on aligning value and perceived benefits from a customer perspective (Sakyi-Gyinae &

Holmlund, 2018). Company X leaders understand the need to create stronger customer relationships and the value those relationships bring in securing business sustainability. To this point, the COO has worked with company interns to create a service offering that is focused on proactivity and adding value to the customer experience with products and services.

From an RBV theory perspective, Wernerfelt (1984) presented differing perspectives of how tools are developed for analyzing an organization's ability to provide a service and implement a service-led strategy such as servitization. One of the most significant findings of RBV is the significance of available resources within an organization that represents strength or weakness or can give an organization any semi-permanent advantage. Servitization has a direct positive impact on return on investment in organizations (Szasz et al., 2017). Company X was able to identify internal resources that can be used to implement servitization within the organization. These advantages include the knowledge and experience of the workforce, the owned equipment that can serve dual purposes, and the financial management processes that have enabled the organization to survive thus far. Servitization has offered struggling manufacturing businesses a way to revitalize their business models, redefine their target markets and enhance their product offerings (Valtakoski, 2017). Though the road to servitization has challenges for manufacturing organizations, this strategy has become more popular because of the applicability for success. Company X leaders have identified strategies to implement servitization within the organization and have the right ideas regarding

utilizing current processes and resources to effectively implement a planned servitization strategy.

Utilizing current resources is best aligned with Company X's financial capability and in the current market where resources are scarce and expensive. Additionally, focusing on increasing customer satisfaction and customer loyalty presents the fastest opportunity to reach sustainability and to remain financially solvent. Leaders of manufacturing organizations may find the information contained in this study useful for evaluating their organization's overall performance and future sustainability. Additionally, leaders may use this study to understand the applicability of the RBV theory in their own organizations and how RBV tenants may help their organization diversify, grow, and sustain.

### **Contributions and Recommendations**

The transformation of business is a constant reality and challenge incurred by business leaders. The transformation of processes themselves is changing the way businesses operate. Innovations in customer requirements, technology, and competition, have caused companies to take a more detailed look at the products and services they offer to determine if their business models are sustainable for the business and in society. The need for compromising, visioning, strategizing, performing, and assessing business goals are key elements in business transformations (Vidgen et al., 2017). These practices ultimately shape the business model and its effectiveness within the organization. The Baldrige Excellence Framework (Baldrige Performance Excellence Program, 2019) is used by DBA students to assess an organization's operations and processes to determine

their health and level of performance. The Baldrige Excellence Framework underscored the importance of organizations making meaningful changes to improve products and processes. Manufacturing business leaders should incorporate innovation and product and process transformation in every part of their core business operations.

There is a need for continuous assessment of business models and their need for transformation (Sumter et al., 2018). Additionally, understanding the nature of all businesses and that transformation is necessary for survival in all businesses and is also essential for business leaders. As indicated in the Baldrige Excellence Framework, organizations should be led and managed so that opportunities for innovation become a part of the culture and opportunities are identifiable across the entire organization. Successful organizations implement innovation through the exploration of new business models, such as implying a shift from selling products to offering services (Baldrige Performance Excellence Program, 2019).

The multi-use of a core product can open multiple streams of revenue for an organization. Without the implementation of diversification strategies, Company X might fail in its mission to grow and achieve sustainability. Manufacturing organizations have realized that to remain competitive and sustain the business, diversification is necessary. Service-led growth leads the market for diversification in the manufacturing industry (Ryu et al., 2018). To ensure a successful diversification strategy, Company X would benefit from putting together a preventative diversification strategy that identifies solutions to overcoming expected pitfalls. Additionally, identifying characteristics of the workforce that will be needed to make any transition successful is critical to Company

X's diversification strategy. Hiring and retaining the right people to move the diversification strategy forward is critical to its success.

Company X can count amongst its successes the trust and loyalty of the current workforce. Employees have endured years of financial uncertainty; however, they have remained understanding and trustful of the senior leaders and their leadership. Additionally, the senior leaders have remained focused on the workforce and seek to provide and reestablish stability for their employees. The Baldrige Excellence Framework (Baldrige Performance Excellence Program, 2019) emphasized the importance of creating and high-performing workforce and environment through the engagement of the workforce and how a highly engaged workforce enables successful adaptations and changes in organizations. Company X has successfully engaged their workforce, and other manufacturing business leaders could use the findings of this study to create successful strategies that enable and encourage their employees to utilize their skills and knowledge to contribute to the organization's success and sustainability.

Lastly, organizational success should be measured through data and analytics of performance. Big data analytics has increased in popularity and is a critical step for organizations to understand how to create business value (Vidgen et al., 2017). Manufacturing business leaders should seek to become more data and information-driven to create value. Company X leaders were not able to provide significant data analytics on organizational or industry trends due to a lack of documentation and documented processes over the years. Vidgen et al. (2017) showed the importance of understanding the power of analytics but also acknowledged that every company does not have big data

upon which to conclude. The researchers further asserted that data conclusions draw from many different areas in an organization (i.e., personnel and business analysts) and that these resources aid an organization in tackling analytics in a systematic way (citation needed). Company X has recently outlined a customer-focused strategy that is based on big data analytics and provides customers with information that helps to prevent problems with equipment. In addition, Company X offers preventative services to create solutions for customers based on analytics. The addition of these core services is an example of a successful diversification strategy as well as represent innovative use of internal resources that create competitive advantage and business sustainability.

### **Application to Professional Practice**

UNITED STATES manufacturing employment and profitability have steadily declined since the beginning of the 21st century (Rose, 2021). According to Fort et al. (2018), the evolution of the manufacturing industry across firms, establishments, and regions is a cause of the decline. Fort et al. analyzed data from employment and output changes and concluded that there are new perspectives about how UNITED STATES manufacturing has evolved and highlighted the difficulties manufacturing companies have in adapting to these changes. Manufacturing business leaders have begun to take advantage of trends in shifting to non-manufacturing activities, and documented increases in employment are attributed primarily to the addition of new non-manufacturing establishments. About a third of this growth is in professional services, a trend that may represent an evolution of UNITED STATES manufacturing firms into neurofacturers that increasingly provide intellectual services rather than physical goods. An example of this

is Company X's new big data analytics service to customers. In this component, I provide insight into how manufacturing business leaders can utilize the findings of this qualitative single case study in their organizations and share how the results can assist them in improving their processes, advancing their business practices, and ensuring their sustainability.

Research is significant to producing knowledge that is applicable across business industries and niches and necessary for organizations to remain competitive in a data-driven society (Berndtsson et al., 2020). The purpose of this qualitative single case study was to explore the strategies manufacturing business leaders use to diversify lines of business and improve sustainability. Manufacturing business leaders who are struggling with growth and sustainability may benefit from the findings and recommendations of this study when creating diversification and sustainability strategies for their organizations.

The results of my research may add to the existing body of knowledge on diversification strategies for improving sustainability in manufacturing organizations. It may also help to fill gaps in the research regarding servitization challenges and successes in for-profit manufacturing organizations. Senior leaders of manufacturing organizations could utilize my research to create diversification strategies that are financially viable using internal resources. My research can also aid in guiding manufacturing leaders through the challenges and in the identification of solutions that will be most effective in their pursuit of diversification. My recommendations are as follows (a) implement a service-led diversification strategy with urgency in order to improve the profitability of



the organization, (b) invest in a knowledge management system in order to retain tacit knowledge of the current workforce, (c) identify the responsibilities of all internal and external stakeholders, (d) align internal resources with competitive market advantage, and (e) document analytics in order to create a reserve of relevant data and analysis noting trends and opportunities relevant to the business.

As this research is grounded in theory, manufacturing business leaders should learn more about the RBV theory and other theories considered for this study and apply what they learn to their business practices. Manufacturing business leaders may use the information gathered from Company X's Baldrige Performance Excellence Program analysis as a starting to review and analyze their organizational health and performance within the 7 performance categories. Manufacturing business leaders can further use the assessment to create diversification strategies that utilize the internal resources that will give them the best chance at achieving sustainability.

### **Implications for Social Change**

Walden University degree programs are unique in the fact that a heavy focus of all programs is centered around creating positive social change in student's fields of study and making an impact in their larger communities (Walden University, 2020). In Walden University's doctoral program, students must include information regarding the positive social impact that the study will have on social change within the community. In this section, I identify how the outcomes of the study could offer researchers and business leaders the opportunity to also impact social change.

Transformational processes are required in an organization to affect positive social change. Stephan et al. (2016) outlined strategies and opportunities for organizations to rebrand themselves using positive social change initiatives. These strategies can help manufacturing business leaders understand how to use positive social change as a revenue generator. Positive social change can be used to strengthen relationships with the community in which the business operates and aid in understanding how to monetize that relationship.

Organizations can drive developments by improving products, services, methods, etc., through social innovation (Kiser et al., 2017). A key property of social innovation is that it must ultimately solve a problem. Funds must be invested as well as tangible and intangible resources dedicated to all members of the organization. Risks associated with social innovation are less for an organization as the focus is more on the organization than the members. Social impact nor social innovation have been a primary focus of Company X in the past, as the organization is a for-profit organization and has solely been focused on sustainability from a profitability standpoint.

The organization, however, is proud of its reputation in the community in which it operates and serves and is also proud of the legacy it has created for its employees and their families. Senior leaders admitted that turnover and changes in employee stability are considered failures of their duties and obligations to their workforce and seek ways to improve stability for their employees. Focusing on social impact, implementing a diversification strategy can enable business leaders to rehire long-term, loyal employees, fulfilling the business mission and their commitment to being a responsible business

partner in surrounding communities. Thus, the findings of the study may contribute to positive social change through the increase of employment opportunities, which can add to the stability for local economies and improve socioeconomic conditions for employees and their families.

### **Recommendations for Action**

This section includes recommendations that senior leaders of Company X and other manufacturing organizations can consider for implementing diversification and improving sustainability. Recommendations for action are important to any research study because further actions identify what next steps are needed to address the problem, what immediate actions should be implemented to solve the research questions, and what obstacles need to be addressed to resolve barriers to implementation (Kunhi et al., 2020). The role of the researcher is to analyze the data obtained during the study to interpret the findings for relevancy while also integrating their existing knowledge and expertise (Cardano, 2020). This research study revealed that diversification strategies in manufacturing organizations could be successful if leaders develop comprehensive strategies that include: (a) stakeholder buy-in, (b) customer satisfaction and loyalty, (c) fiscal responsibility, (d) documented knowledge management practices and systems, and (e) data collection and analysis.

Manufacturing business leaders should use this study as a guide, however, implementing study techniques and designs that are applicable to their own business circumstances. For organizations that have comparative data or available data of past organizational performance, a mixed method study design may be more applicable and

can give leaders more information in determining their future strategic direction based on their past performance and analysis of annualized trends. For organizations whose product offerings are not highly specialized or niche, analyzing the results of multiple organizations may prove helpful in determining successful strategies and in identifying additional opportunities to diversify. Other research questions that may be helpful to explore include “How do supply chain relationships affect diversification strategies in organizations?” and “How do servitization strategies in product-based manufacturing organizations help create sustainability?”.

While Company X has excelled at maintaining the loyalty and trust of its workforce and other external stakeholders, the lack of documented processes and lack of agreement on diversification strategy by senior leaders can hinder its future successes. To ensure profitability and sustainability for Company X, leaders have begun to and should continue being transparent with stakeholders, both internal and external, regarding the challenges and the market opportunities. A clearly defined strategy must be created and implemented and buy-in from the workforce will be necessary for the success of any strategy. The organization must document its processes and procedures to ensure quality and improve efficiencies. The senior leaders must agree to the organization’s strategic direction, and the financial records must be maintained and audited to ensure viability and compliance.

It is important for business leaders to adapt businesses to changing circumstances, and leaders need to account for social as well as business-related changes when developing solutions (Crick et al., 2018). One of the most important factors to surviving

competition and industry changes is a comprehensive strategic planning initiative and an adequate strategic plan. The results of this study could aid manufacturing business leaders in creating diversification strategies that enhance competitive advantage, improve customer service, and increase the profitability of their organizations. The results of this study will be disseminated via training, conferences, lectures, publications, and social media platforms for easier discovery amongst manufacturing business leaders.

### **Recommendations for Further Research**

The purpose of the study was to explore diversification strategies manufacturing business leaders use to achieve business sustainability. In conducting my research, there were limitations that may affect the applicability of the results to other manufacturing organizations. The limitations of this study were (a) data was gathered and based on the experiences of the business leaders in one manufacturing organization from the northeastern region of the United States and did not gather experiences from leaders of other manufacturing organizations, (b) data from semistructured interviews with leaders and the analysis of one organization's internal and public documents might limit the generalizability of the results across other organizations and industries, and (c) the study population was limited to three leaders of a single organization who used diversification strategies to achieve sustainability. Additionally, the manufacturing organization in this study operates within a niche market to which most competitors are internationally based, and comparable data is scarce.

Because of these limitations, my recommendation is to expand this research to identify other manufacturing organizations within the United States that have competitor

analysis data and national competitors for comparison. Additionally, RBV theory is a mixture of comparable findings of many other theories, some of which were identified in the literature review of this study. Manufacturing business leaders may find these other conceptual frameworks more applicable to their business models toward achieving sustainability. I recommend that researchers explore additional conceptual frameworks to aid in identifying unique sources of competitive advantage and an organization's best opportunities to achieve sustainability through the implementation of diversification strategies. Utilizing other conceptual frameworks may help researchers identify the most effective ways for manufacturing business leaders that target their specific business models and niches towards ensuring continued growth and profitability.

### **Reflections**

Walden University's Doctorate of Business Administration Consulting Capstone Doctoral Study provided me the opportunity to not only study qualitative research but also allowed me to participate in the qualitative research process as a scholar consultant to a for-profit business organization. Additionally, I was able to study, learn and apply the Baldrige Excellence Framework to analyze the business operations of my consulting client and recommend solutions based on best practices. Throughout the process, I was challenged to address researcher bias that could have affected my ability to complete the consulting capstone study.

The consulting capstone challenged me as a professional and as a student. Because of my background as a business consultant and my certification as a green belt in Lean Six Sigma processes, it was important to approach this study and all

communications with my client from a position of learning versus a position of knowing. Additionally, I was not familiar with the terminology, business model, or subject matter of the capstone client. Learning the client, business model, and terminology presented learning curves for me as the scholar consultant. I realized that to build an effective consultant-client relationship, I needed to immerse myself into the client's business from an operations standpoint, which included using common terminology of manufacturing business leaders. I focused on building trust with my client leader, which allowed me to ask questions regarding organizational weaknesses, opportunities, failures, and successes. My job as the scholar consultant was to listen to the organization leaders and provide them a safe space to share the weights of the business failures as well as a place to celebrate the business successes.

Reflecting on my journey, there are some things I would have done differently. First, understanding the importance of time management and planning cannot be understated. Organizing my time and setting targets for writing could have helped me be more efficient during and in completing this study. Additionally, I began this journey without the understanding of how critical forming relationships with other scholar consultants is to this journey. I made a few connections along the way but did not take advantage of the help and advice offered by other scholar consultants to keep me accountable. Eventually, I made connections with others, which immediately helped propel me to the finish line. I quickly learned to trust my chair and to trust the process. I began to reach out to my chair to ensure I was on the right track, and hearing her thoughts on the way forward was helpful in clearing any confusion regarding the next steps. I am

emerging from this process with an understanding of what it takes to not just move an organization forward but also how people and processes play a critical role in the organization's failures just as much as it does their successes. I have grown as a doctoral student and have also grown as a professional in the consulting industry.

### **Conclusion**

The purpose of this research was to advance knowledge and understanding of applying diversification strategies in manufacturing business models. Using the Baldrige Performance Excellence Program allowed me the opportunity to evaluate Company X's processes and procedures and analyze their chances for success and sustainability.

Utilizing the RBV theory allowed me to help Company X leaders identify their best internal resources to secure a competitive advantage in a niche market. The study helped me grow as a business consultant and also increased my knowledge of an industry that was foreign to me beforehand. I was able to talk with the senior leaders of the organization regarding strengths and weaknesses and able to provide the leaders with resources and examples from other organizations that have had similar challenges.

Conducting this research study revealed gaps and limitations in the current research. Because of the niche market and the limit of available data, manufacturing organizations do not have comparative data available regarding diversification strategies. However, in recognizing the inevitable changes in society and the need for organizations to reinvent their ways of business to survive, manufacturing business leaders can take away from the study the certainty that customer satisfaction, workforce loyalty, and revenue diversification are necessary to ongoing survival. Innovation does not only apply



to products, but now extends to service-led strategies, supply chain partnerships and management, and within organizational processes for efficiency and effectiveness.

The diversification process requires an investment in strategy development of people, processes, and products and an ongoing commitment to analyzing data and making enhancements that increase customer and stakeholder satisfaction. The manufacturing industry's survival is dependent upon collaboration and overcoming national and international competition that has infiltrated niche markets like Company X's. The sharing of data to make accurate comparisons of the industry strengths and opportunities will also be helpful in managing long-term organizational strategies. Through collaboration and sharing of information, manufacturing organizations can more quickly make decisions that align with their organizational strengths and capabilities and identify the strategies that give them the best opportunities to achieve sustainability.

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## Appendix A: Interview protocol

### Administrative Data

Location: \_\_\_\_\_

Participant: \_\_\_\_\_

Date/Time: \_\_\_\_\_

Name of Study:

Value-Added Strategies to Diversify and Sustain Organizations for Manufacturing Business Leaders

Conduct the Interview.

The interview will be 90 minutes maximum and recorded:

#### 1. Introduction (5 minutes)

- Thank the manufacturing manager for allowing the interview today.
- Introductions
- Main Research Question: What strategies do manufacturing business leaders use to diversify lines of business for sustainability?

#### 2. Informed Consent (Provide consent form to potential participant (15 minutes)

Key points (brief to the potential participant):

The purpose of this qualitative single case study is to explore the strategies manufacturing business leaders use to diversify lines of business for sustainability. At least three business leaders of a manufacturing organization located in the northeastern region of the United States will comprise the target population. Population members will have successful experience implementing strategies to diversify lines of business for sustainability. Diversification could enable the business leadership to rehire long-term, loyal employees, thus fulfilling the business mission and their commitment to being a responsible business partner in the surrounding community. The findings of the study may contribute to positive social change through the increase of employment

opportunities, which will add to the stability of the local economy and improvement of socio-economic conditions in regard to employment and income.

- This study is voluntary. Any participant may stop at any time without any retribution.
- All information provided by participants is confidential.
- I will not use your personal information for any purposes outside of this research project.
- You must make an informed and conscious decision to consent to participate or decline participation in this study.
- I will maintain your privacy and identity of the organization confidential by assigning a tracking code number, which will not include any personal information nor easily identifiable information from your participation in the study. I will not disclose your identity nor the identity of the organization by replacing any easily identifiable information with the tracking code number or completely removing the easily identifiable information from this study.
- I will maintain participant's data secure, backed up, and password protected electronically within my computer and external removable storage device.
- I will keep participant's data for 5 years, and then destroy it.
- Do you have any questions regarding the informed consent form?
- Please, sign the consent form, if you do not have any further questions and wish to continue to participate.

#### Interview Rules:

- You may defer any question to answer later.
- Your honest answers are important in defining your business experiences.
- Your responses are important and respected.
- As a reminder, everything said during the interview is confidential.
- May I have your permission to record the session at this time?
- Any questions, before we begin?
- I will start the recording now. Start the recording!

#### 3. Interview Questions: (45 Minutes)

- Opening interview questions
- Key study questions
- Probing questions
- Concluding questions

#### 4. Interview Wrap-Up (5 Minutes)

- Remember the information shared today may create positive social change, through responsible strategy to sustain, which others can use to promote values and positive social change.
- Your identity and interview responses will remain confidential.
- Please, contact Walden University IRB, IRB email listed on the consent form, for any questions or concerns.

Thank you for allowing me the opportunity to conduct this interview. In order to ensure I understand the meaning of our discussion and the data collected, I will provide you with an analysis of the data and a brief summary of your answers to the interview questions for you to verify meaning, context, and interpretation, as well as to go over any questions and ensure your agreement of the data and summary.

## Appendix B: Interview Questions

### Research Question

What strategies do manufacturing business leaders use to diversify lines of business for achieving sustainability?

### Interview Questions

1. How did your organization develop its business diversification strategy?
2. What were the key challenges to implementing your organization's diversification strategy?
3. How did you overcome the key challenges to implementing your organization's diversification strategies?
4. How did you assess the effectiveness of your strategies for diversifying your lines of business?
5. How, if at all, did customer feedback affect goals associated with implementing your organization's diversification strategies?
6. What strategies did you use to increase sales in your new product lines?
7. From your experience, what have been the effects of implementing diversification strategies on your organization?
8. From your experience, what have been the principal results from the business model diversification's strategies on your customers?
9. What else can you share that may be important for understanding the diversification strategies your organization has developed